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PROGRAMMING DESIGN GUIDE FOR COMPUTER IMPLEMENTATION
OF JOB AID FOR SELECTING INSTRUCTIONAL SETTING

BASIC SKILLS INSTRUCTIONAL SYSTEMS TECHNICAL AREA

DECEMBER 1979

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| 20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The purpose of the research was to develop and evaluate a guide for the computer implementation of a manual Job Aid previously developed. (ARI Research Products 80-13 and 80-14). The manual Job Aid of the prior research provided "how to do it guidance" for selected activities identified in the Instructional Systems Development Model (ISD, TRADOC 350-30). The present document provides a Programming Design Guide which enables computer programmers to implement the manual Job Aid for Selecting Instructional Setting (ISD Block [5] on any computer system. Companion documents (ARI Research Products | | |

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20. 80-24a and 80-24c) provide the developmental history of the Programming Design Guide and a supplemental handbook for instructional developers who will use the computer-based Job Aid.

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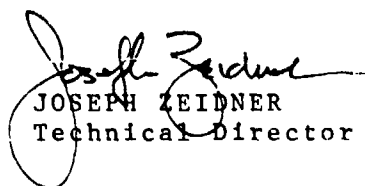
FOREWORD

The Computer-Based Instructional Systems Team of the US Army Research Institute for the Behavioral and Social Sciences (ARI) performs research and development in the area of educational technology that applies to military training. Of interest are methods for training individuals to develop and utilize instructional courseware in reasonable time, at acceptable cost.

This Research Product is one of a series which have been designed to support the implementation of the Instructional Systems Development Model (ISD, TRADOC Pamphlet 350-30). The ISD Model is a step-by-step procedure for the analysis, design, development, implementation, and control of military course materials. A previous effort produced manual Job Aids which are paper and pencil documents designed to provide "how to do it" guidance for the ISD Model. This document is part of a series of three developed to support the delivery of the manual Job Aids by computer. To accomplish this research, ARI's resources were augmented by contract DAHC19-78-C-0010 with the Human Resources Research Organization (HumRRO).

The contributions of personnel from ARI's Manpower and Educational System's Technical Area as well as those of Mr. Charles F. Marshall and Mr. Joseph P. Severo, Research Facilities Support Group are acknowledged. Mr. Antonio J. Alameda, HumRRO also contributed to this research effort.

The entire research project is responsive to the requirements of Army Project 2Q263743A794, FY80 Work Program.


JOSEPH ZEIDNER
Technical Director

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PROGRAMMING DESIGN GUIDE FOR COMPUTER IMPLEMENTATION OF JOB AID FOR SELECTING INSTRUCTIONAL SETTING

BRIEF

Requirement:

The purpose was to develop a language to translate an existing paper and pencil Job Aid onto a computerized delivery system. The Job Aid is one of a series developed previously to support users of the Instructional Systems Development Model (ISD).

Procedure:

A Programming Design Language (PDL) was created to describe the computer functions (e.g., computer/user interactions, storage/retrieval of data, program branching, program management, and calculations) required by the Job Aids (ARI Research Products 80-13 through 80-18). The PDL was designed to communicate to the computer programmer in a language independent fashion so that the on-line or computer version of the Job Aid could be delivered by any computer.

Utilization:

The Programming Design Guide may be used by computer programmers who are tasked with programming the manual Job Aids.

TABLE OF CONTENTS

| Section | Page |
|---|------|
| I INTRODUCTION | 1 |
| II PROGRAM DESIGN LANGUAGE | 3 |
| III PROGRAMMING FLOWCHART | 27 |
| IV VARIABLES USED IN THE PROGRAMMING DESIGN GUIDE | 41 |
| V SETUP MATERIAL | 45 |
| VI PROGRAMMING SPECIFICATIONS | 47 |

Section I

INTRODUCTION

Job Aids¹ are being developed for the US Army Research Institute for the Behavioral and Social Sciences under contract DAHCl9-78-C-0010. The Job Aids are intended to be stand alone, step-by-step procedural guides which are equally useful to individuals at all experience levels of the instructional systems development process.

This Programming Design Guide (PDG) was developed to permit the off-line Job Aid for Select Instructional Setting to be available in an inquiry-type, on-line version. It is intended to provide computer programmers with all of the guidance necessary for them to implement on their computer system the off-line job aid. The resulting on-line program will be used by instructional development personnel to assist in the selection of the appropriate instructional setting for each critical task within an MOS.

Inasmuch as the PDG will be used as a guide for programming on a number of computer systems which employ different programming languages, the Guide is written in a Program Design Language (PDL) format rather than in any specific programming language. The Program Design Language is a pseudo-computer language which is used to describe the design specification for an interactive computer program to assist in the selection of instructional settings.

¹Schulz, R.E. and Farrell, J.R. Job aids: Descriptive authoring flow-charts for phase I-analyze of the Instructional Systems Development model (Research Product 80-13). Alexandria, VA: US Army Research Institute, May 1980.

Schulz, R.E. and Farrell, J.R. Job aid manuals for phase I-analyze of the Instructional Systems Development model (Research Product 80-14). Alexandria, VA: US Army Research Institute, May 1980.

Schulz, R.E. and Farrell, J.R. Job aids: Descriptive authoring flow-charts for phase II-design of Instructional Systems Development model (Research Product 80-15). Alexandria, VA: US Army Research Institute, May 1980.

Schulz, R.E. and Farrell, J.R. Job aid manuals for phase II-design of the Instructional Systems Development model (Research Product 80-16). Alexandria, VA: US Army Research Institute, May 1980.

Schulz, R.E. and Farrell, J.R. Job aids: Descriptive authoring flow-charts for phase III-develop of the Instructional Systems Development model (Research Product 80-17). Alexandria, VA: US Army Research Institute, May 1980

Schulz, R.E. and Farrell, J.R. Job aid manuals for phase III-develop of the Instructional Systems Development model (Research Product 80-18). Alexandria, VA: US Army Research Institute, May 1980.

It will be necessary for you to translate the Program Design Language in the Guide into the programming language (e.g., BASIC, FORTRAN, COBOL, etc.) used at your installation.

The PDG is organized into six sections as described below. Study each of these sections carefully before you begin programming.

SECTION I: Introduction

SECTION II: Programming Design Language. This section describes the commands used in the Guide and provides guidance and examples of how each is used.

SECTION III: Programming Flowchart. The flowchart included in Section III may be useful to you as an overview of the programming requirements for the entire program.

SECTION IV: Variables Used in the PDG. This section provides an alphabetical listing of all of the variables used in the program. Any variable can be renamed to better fit your programming language.

SECTION V: Setup Material. In this section some variables are set to predetermined values and various strings and arrays are established.

SECTION VI: Programming Specifications. Section VI is the heart of the PDG. It contains the labels, commands, tags and comments necessary for the programming of the Select Instructional Settings Job Aid.

In Section VI of this PDG reference is made to a document, Supplemental Guide: Sources of Information for On-line Implementation of ISD I.5 Select Instructional Setting.¹ The Supplemental Guide should be made available to instructional development personnel who use the on-line version of the Job Aid.

¹Schulz, R.E. *Supplemental Guide: Sources of Information for On-line Implementation of ISD I.5 Select Instructional Setting* (ARI Research Product 80-24c), Alexandria, VA: US Army Research Institute for the Behavioral and Social Sciences, in press.

Section II

PROGRAM DESIGN LANGUAGE

The Program Design Language (PDL) is a pseudo-computer language which may be used to describe the design specifications for certain classes of interactive computer programs. At present there are the following commands which are described on the pages indicated.

| <u>Commands</u> | <u>Page</u> |
|-----------------|-------------|
| ACCEPT | 24 |
| \$ACCEPT | 25 |
| ARRAY | 8 |
| CALL | 16 |
| CLEAR | 21 |
| DECIDE | 26 |
| GOTO | 13 |
| ITERATE | 17 |
| NEXT | 16 |
| ON | 14 |
| RETURN | 16 |
| SET | 10 |
| \$SET | 11 |
| SHOW | 19 |
| SHOWB | 20 |
| STOP | 15 |
| \$STRING | 9 |
| WAIT | 23 |

PDL SYNTAX

The PDL is a statement-oriented language. In general, a statement consists of four fields: label, command, tag and comment. The label and comment fields are optional. Comments are delimited by a string of two or more asterisks. Examples of valid PDL statements are:

```
LBL      SHOW   WHAT IS YOUR NAME?   *****WRITE ON USER'S TERMINAL
          #ACCEPT $NAME   ,   40   *****ALLOW UP TO 40 CHARACTERS
          SHOW   YOUR NAME IS /$NAME/
          STOP
```

Implementation of Specific Text

Since computer systems differ among installations, the PDL includes the ability to specify where a PDL phrase should be consistently replaced with a phrase appropriate for a specific computer system. The PDL phrase is enclosed in a pair of # signs.

Example

SHOW #PRESS NEXT# TO CONTINUE

#PRESS NEXT# means that the user signals readiness to proceed by pressing a function key or typing a command.

In one implementation, this message might be "PRESS CARRIAGE RETURN to continue."

For another system, the message might say: "HIT CARRIAGE RETURN to continue."

Naming Conventions

Because the PDL is a pseudo-computer language, there are no restrictions on labels and variable names; their length is unlimited. By convention, all commands and variable names associated with alphanumeric characters are preceded by a \$. This lack of restrictions should promote the use of meaningful names for labels and variables.

Example

```
$SET      $MYNAME = "FRANCOIS"
```

Array Declarations and Data Manipulations

There are two basic data types in the PDL--numeric integers and alphanumeric strings. Instances of either data type may exist as constants, single variables or arrays. There are four commands used for array declaration and data manipulation: ARRAY, \$STRING, SET, and \$SET.

ARRAY arrayname (dimensions)

The ARRAY command specifies the existence of an array of integer values.

Examples

| | |
|----------------------------|--|
| ARRAY ISR-Question (14,24) | ****specifies an array of 14 rows with 24 columns per row |
| ARRAY XYZ (10) | ****specifies a vector of 10 elements |

```
$STRING $stringname , stringsize
$STRING $stringname (dimensions) , stringsize
```

The \$STRING command specifies the existence of an alphanumeric character string or array of character strings. The "stringsize" is the maximum number of characters contained in the string or element of a string array.

Examples

```
$STRING $NAME , 30      ****specifies a string of up to
                          30 characters
$STRING $TASKS(24) , 40  ****specifies a set of 24 strings
                          of 40 characters each
```


$$\text{SET varname} = \left\{ \begin{array}{l} \text{varname} \\ \text{constant} \end{array} \right\} \left[\left\{ \begin{array}{l} + \\ - \\ * \\ / \end{array} \right\} \left\{ \begin{array}{l} \text{varname} \\ \text{constant} \end{array} \right\} \right]$$

The SET command allows simple arithmetic operations to be performed. Variable references may also be references to array elements.

Examples

```
SET X = 12
SET X = Y + 3
SET Y = 3 * Z
SET Table(1) = TBL(1,3) + TBL(4,Z)
SET Count = TABLE(I)
```

```
$SET $string = "alphanumeric constant"  
$SET $string = $string2
```

The \$SET command is used to place a value in a string variable. Variable references may also be references to string array elements.

When the \$SET command is used with strings of unequal length, the string on the right, when assigned to the string on the left, is either padded with blanks or truncated in order to correspond to the length of the string on the left.

Examples

```
$SET $NAME = "HARRY"  
$SET $NAME2 = $NAME  
$SET $FIRSTNAME = $NAMES(1)
```

Sequence Control

There are eight PDL commands that are used to control the flow of the program:

ITERATE and NEXT for loop control,

GOTO, GOTO. . . IF, ON. . . GO TO . . . CALL . . . RETURN for control of unconditional and conditional program branching, and

STOP to halt processing.

GOTO label

GOTO label IF condition

The GOTO command transfers control to the statement having the corresponding label. The second form of the command transfers control only if the specified condition is met. A test condition is expressed as follows:

| | | |
|---------|---|---|
| varname | $\left\{ \begin{array}{c} = \\ \neq \\ < \\ <= \\ > \\ >= \end{array} \right\}$ | $\left\{ \begin{array}{c} \text{varname} \\ \text{constant} \end{array} \right\}$ |
|---------|---|---|

or

| | | |
|--------------|---|---|
| \$stringname | $\left\{ \begin{array}{c} = \\ \neq \end{array} \right\}$ | $\left\{ \begin{array}{c} \$stringname \\ \text{constant} \end{array} \right\}$ |
|--------------|---|---|

Examples

GO TO BLOCK 12

GO TO BLOCK 12 IF COUNT = 19

GO TO BLOCK 12 IF COUNT > MAXCOUNT

GO TO BLOCK 12 IF \$NAME = "FRED"

GO TO BLOCK 12 IF \$NAME = \$NAME2

ON varname GOTO label, label, . . . , label

This command structure causes a conditional transfer of control according to the value of the specified variable. A value of one causes control to transfer to the first label. A value of two corresponds to the second label, and so forth. If the value of the given variable is less than one or greater than the number of labels, the next sequential statement is executed.

Example

ON X GOTO BLOCK3, BLOCK4, BLOCK5, BLOCK6

STOP

The STOP command terminates a PDL program.

CALL label

RETURN

The CALL command jumps program control to subroutine.

The RETURN command returns program control to command following the CALL statement.

ITERATE index, first value, last value [,increment]

.
.
.

The ITERATE command specifies the beginning of an iterative loop structure. The variable "index" is first set to the value "first value." Subsequent commands are processed in the normal manner, until a "NEXT index" command is encountered. The loop is then restarted with the variable "index" first having the value of "increment" added to it. The increment value defaults to one if unspecified. The loop terminates when the value of "index" becomes greater than "last value." Control then transfers to the next command after "NEXT index."

Examples

ITERATE I , 1 , 10

.
.
.

NEXT I

ITERATE J , 1 , 9 , 2

.
.
.

NEXT J

****J will be 1, 3, 5, 7 and 9
during five loop passes.

Terminal Output

The PDL has three commands for displaying text to the user: SHOW, SHOWB, and CLEAR. Although the PDL makes no assumptions about the type of terminal available, many systems use CRT screens. For this reason, commands such as CLEAR and SHOWB are included in the PDL. For hardcopy terminals, appropriate spacing should be substituted in order to format the text.

SHOW text

SHOW (text label)

The SHOW command displays text at the user's terminal. The text to be displayed may either be contained in the command itself or be referred to by an indirect label. The values of variables may be imbedded in the body of a block of text by enclosing references to the variables in a pair of slashes.

Examples

SHOW This is a sentence.

SHOW The value of variable fred is /fred/.

SHOW (text1) ****text1 is the label associated with a
block of text

SHOWB text

SHOWB (text label)

The SHOWB command is the same as the SHOW command except that the text associated with the command B to be displayed on the "bottom" of the user's terminal, if possible. SHOWB is generally used to display references, footnotes, and so forth. The manner in which SHOWB is differentiated from SHOW will depend on terminal hardware considerations for any given computer system.

Example

SHOWB Guide reference page _ _.

CLEAR

The CLEAR command indicates that the user's CRT screen should be blanked, if possible. For hardcopy continuous form terminals, the CLEAR command may generate several linefeed characters to indicate framing of the text.

Keyboard Input

The PDL assumes the existence of an alphanumeric keyboard for user input. There are four commands in the PDL for processing keyboard input: WAIT, ACCEPT, \$ACCEPT, and DECIDE. Any given user input may be a number, a string of characters, or one of the special functions, NEXT, BACK, or HELP. For example, in one implementation, the user presses "Carriage Return" for NEXT, types "B" or "BACK" followed by "Carriage Return" for BACK, and types "H" or "HELP" followed by "Carriage Return" for HELP. The user should be made aware of when HELP and BACK are available. If HELP or BACK are requested when unavailable the user should be made aware of the non-availability.

WAIT [backlabel] [helptext label] [,clear]]

The WAIT command specifies that user input is expected. The user has three options available to him in the general case: NEXT, BACK and HELP. "NEXT" causes the next command after the WAIT to be obeyed. "BACK" causes control to transfer to the command associated with "backlabel," if specified. "HELP" causes the text associated with "helptext label" to be printed at the user's terminal.

Examples

WAIT

WAIT BLOCK7

WAIT BLOCK7, (advice text)

WAIT , (advice text)

WAIT BLOCK7 , (advice text, CLEAR) ****clear the screen before
showing help text

ACCEPT varname, lowbound, highbound [backlabel] [(helptext label[,clear])]

The ACCEPT command specifies that a numeric input is expected from the user. The value must be between "lowbound" and "highbound." An error message is printed if the given value is out of range. The arguments "backlabel" and "helptext label" are used as documented for the WAIT command.

Examples

SHOW What percentage of soldiers perform this task?

ACCEPT Perform-Percentage , 1 , 100 , Block 4

ACCEPT AGE, 1 , 200 , , (Hint)

```
$ACCEPT $stringname , maximum length [,backlabel] [(helptext label  
[,clear])]
```

The \$ACCEPT command is used to accept alphanumeric character input from the user. The string entered must be between zero and "maximum length" characters in length. The arguments "backlabel" and "helptext label" are used as documented for the WAIT command.

Examples

```
$ACCEPT $NAME , 30  
$ACCEPT $MOS , 20 , , (moshelp)  
$ACCEPT $NAMES(1), MAXNAME
```



```
DECIDE yeslabel , nolabel [,backlabel] [,(helptext label [,clear])]
```

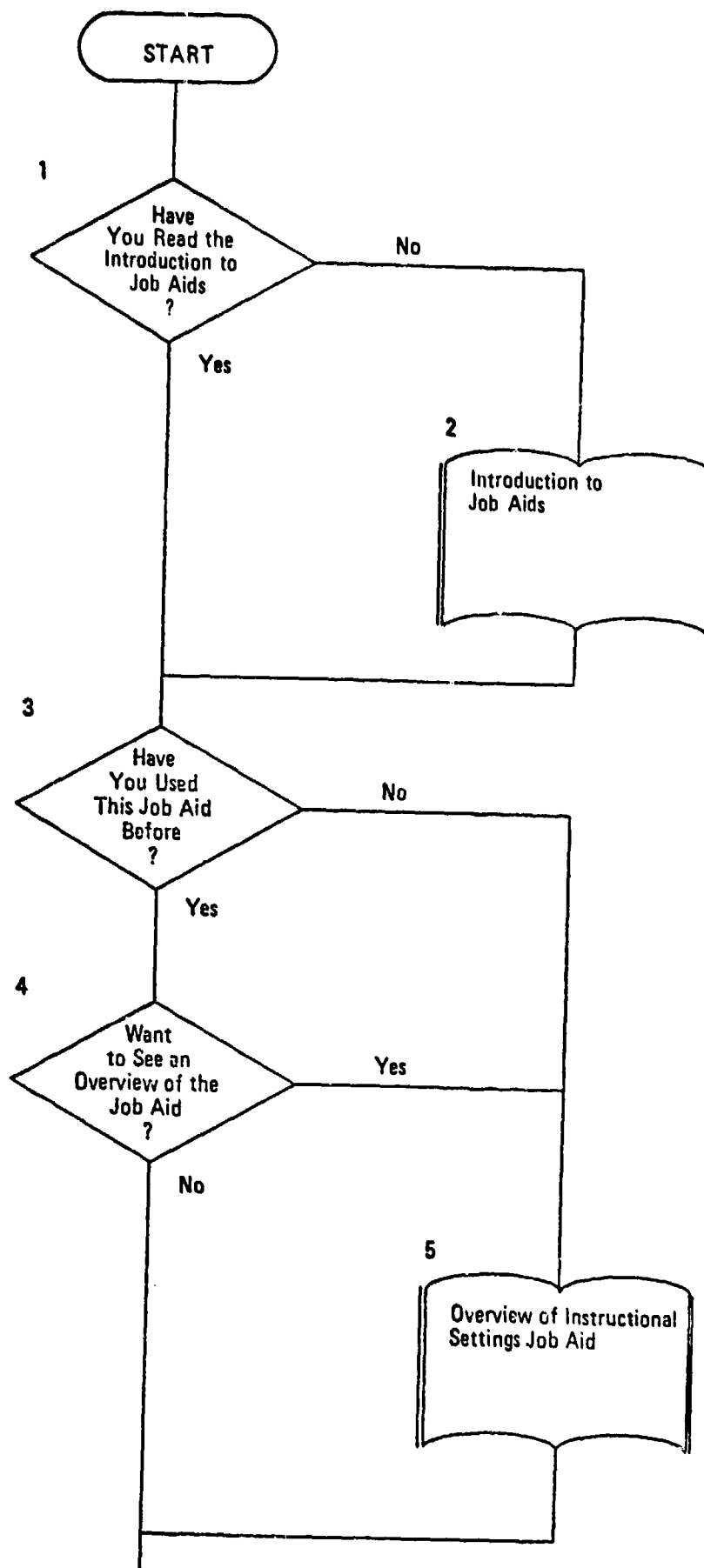
The DECIDE command is used when a yes or no response is expected from the user. A response of yes or no causes control to transfer to the corresponding label. If neither response is made, a prompting message is given to the user. The arguments "backlabel" and "helptext label" are used as documented for the WAIT command.

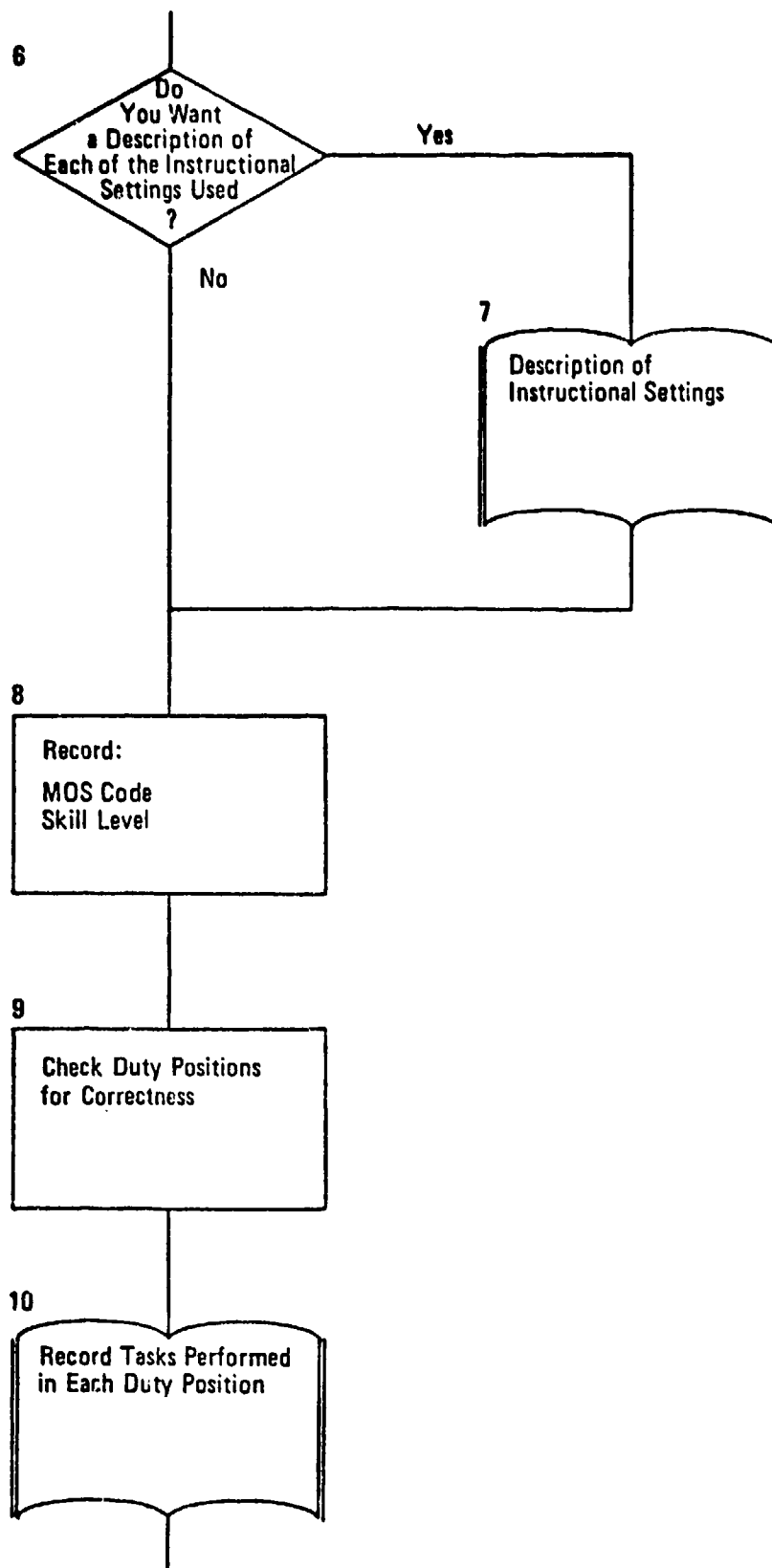
Examples

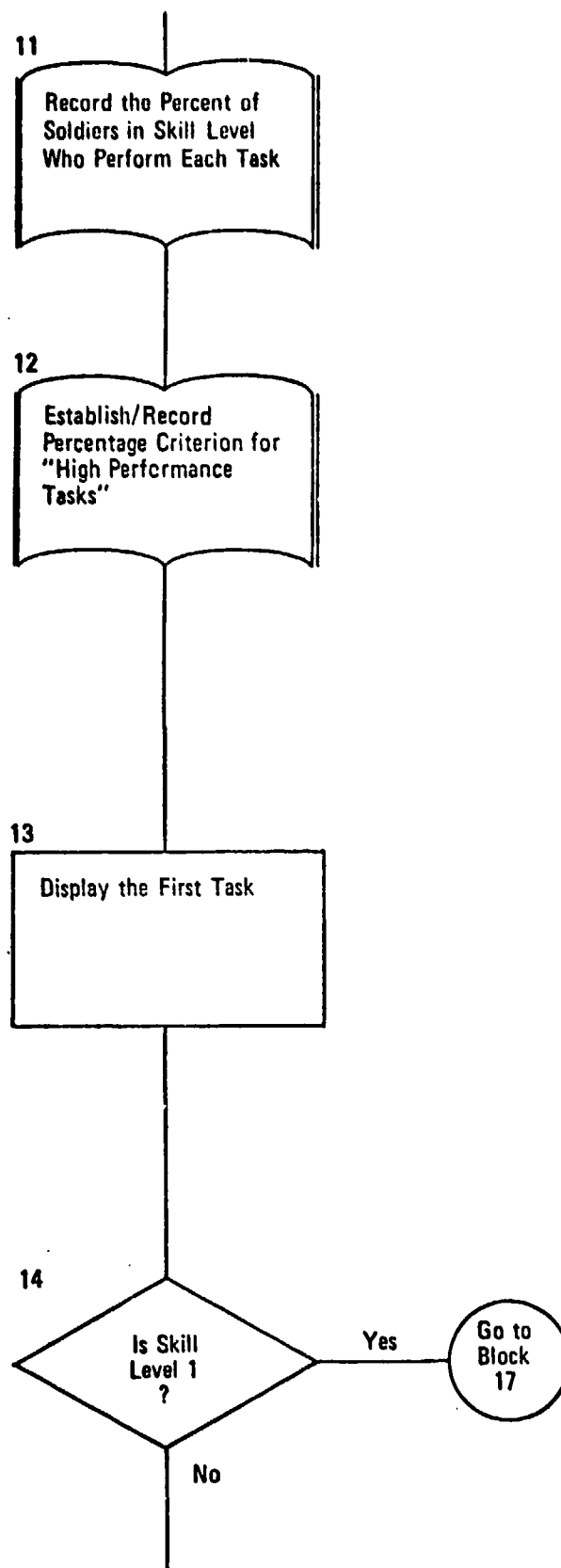
```
DECIDE DOIT , SKIPIT , REVIEWIT , (ADVISEUSER)
```

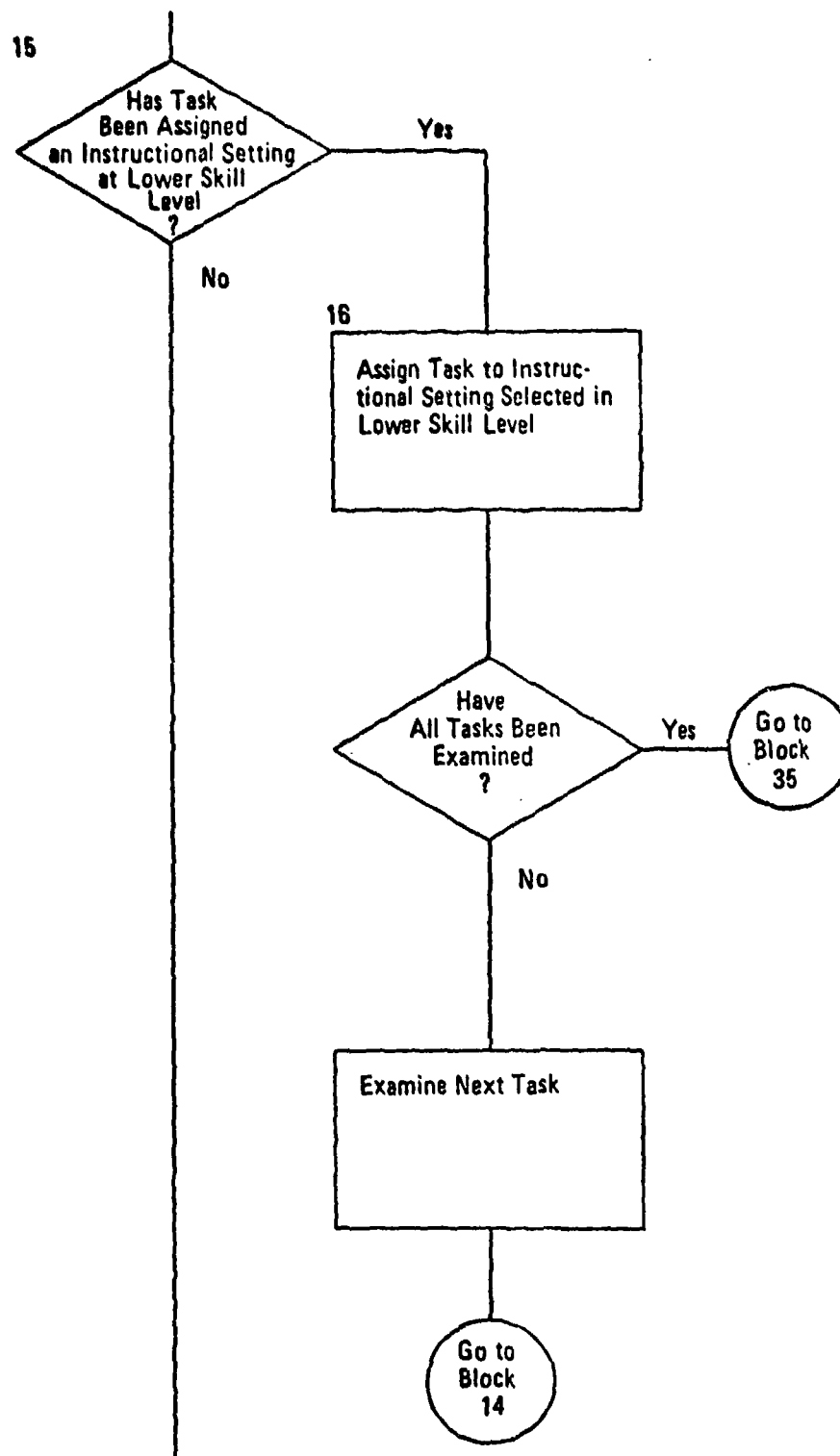
```
DECIDE OK , NO
```

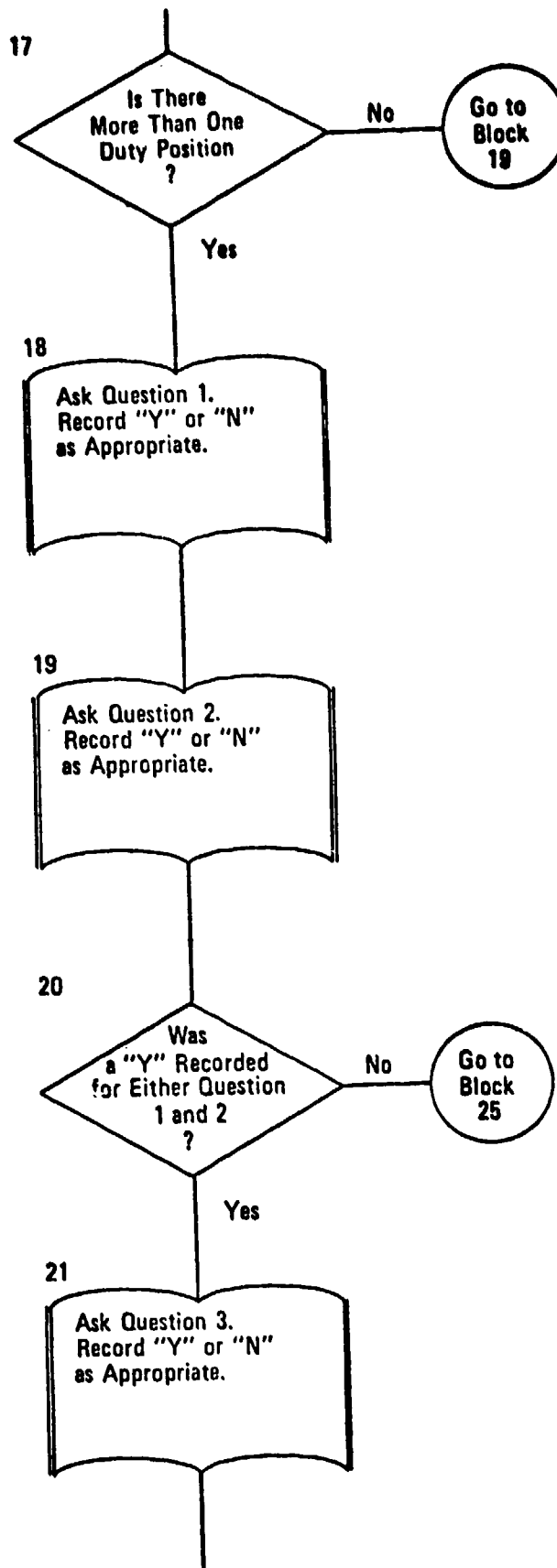
Section III
PROGRAMMING FLOWCHART

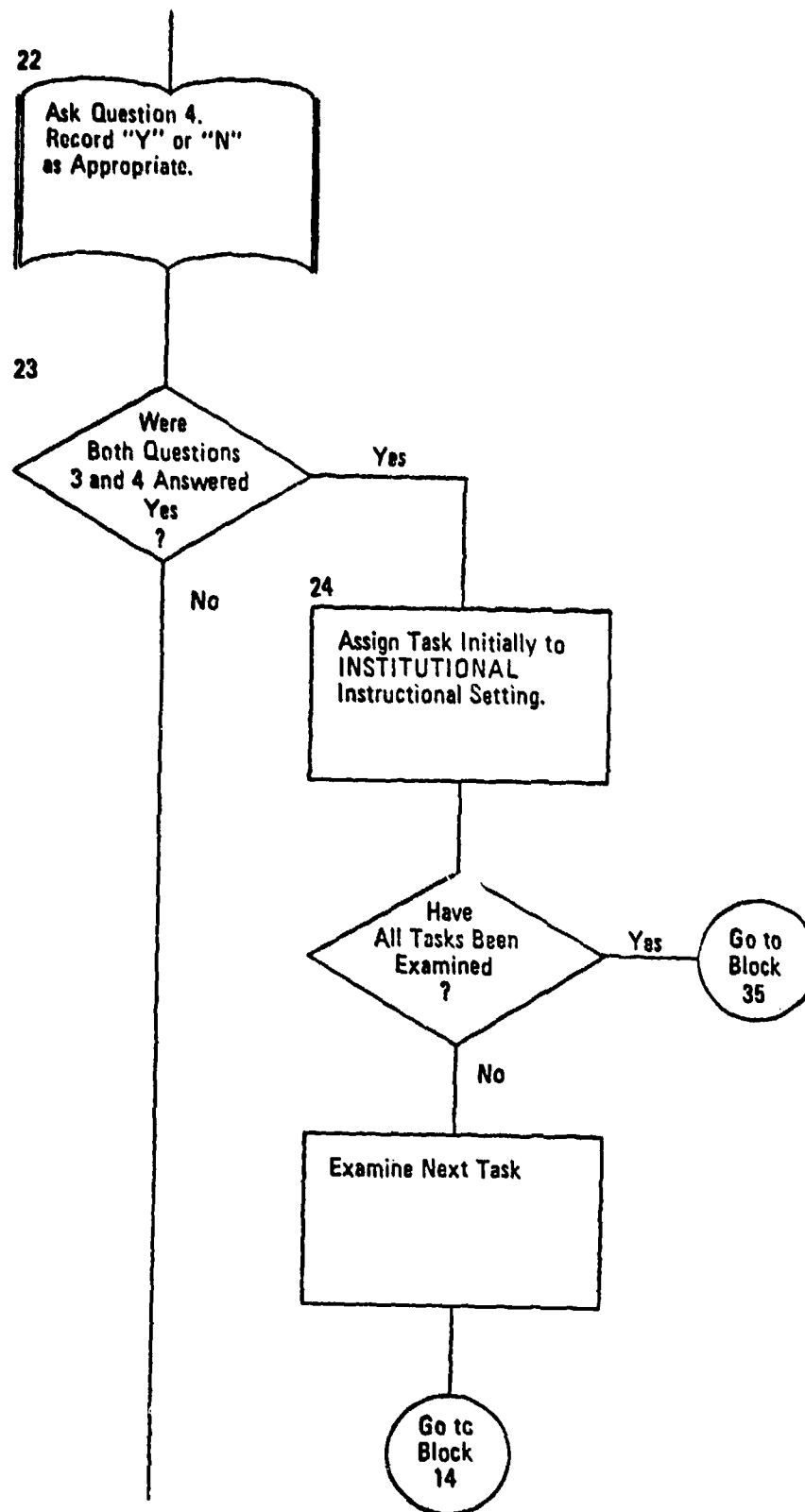


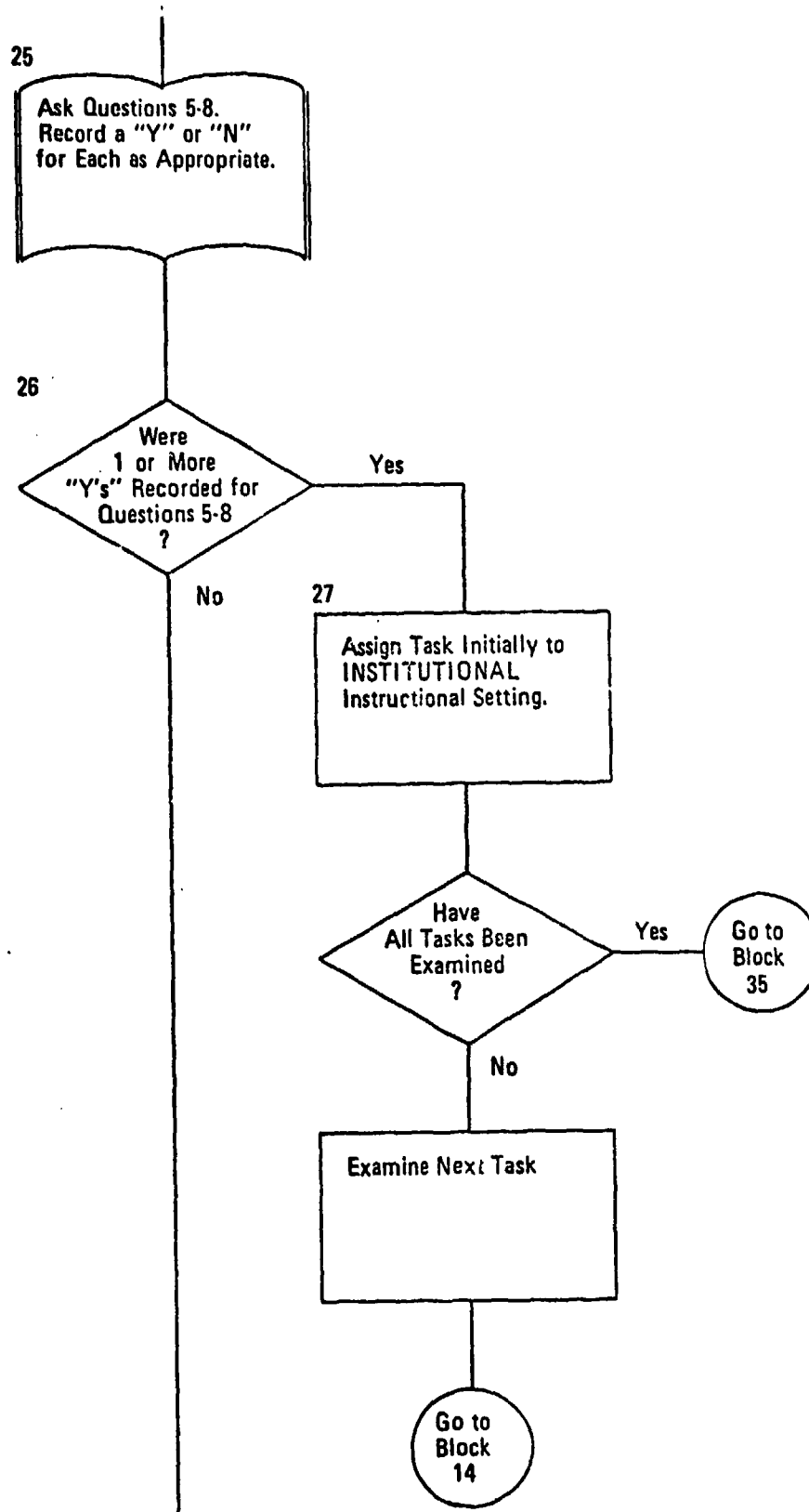


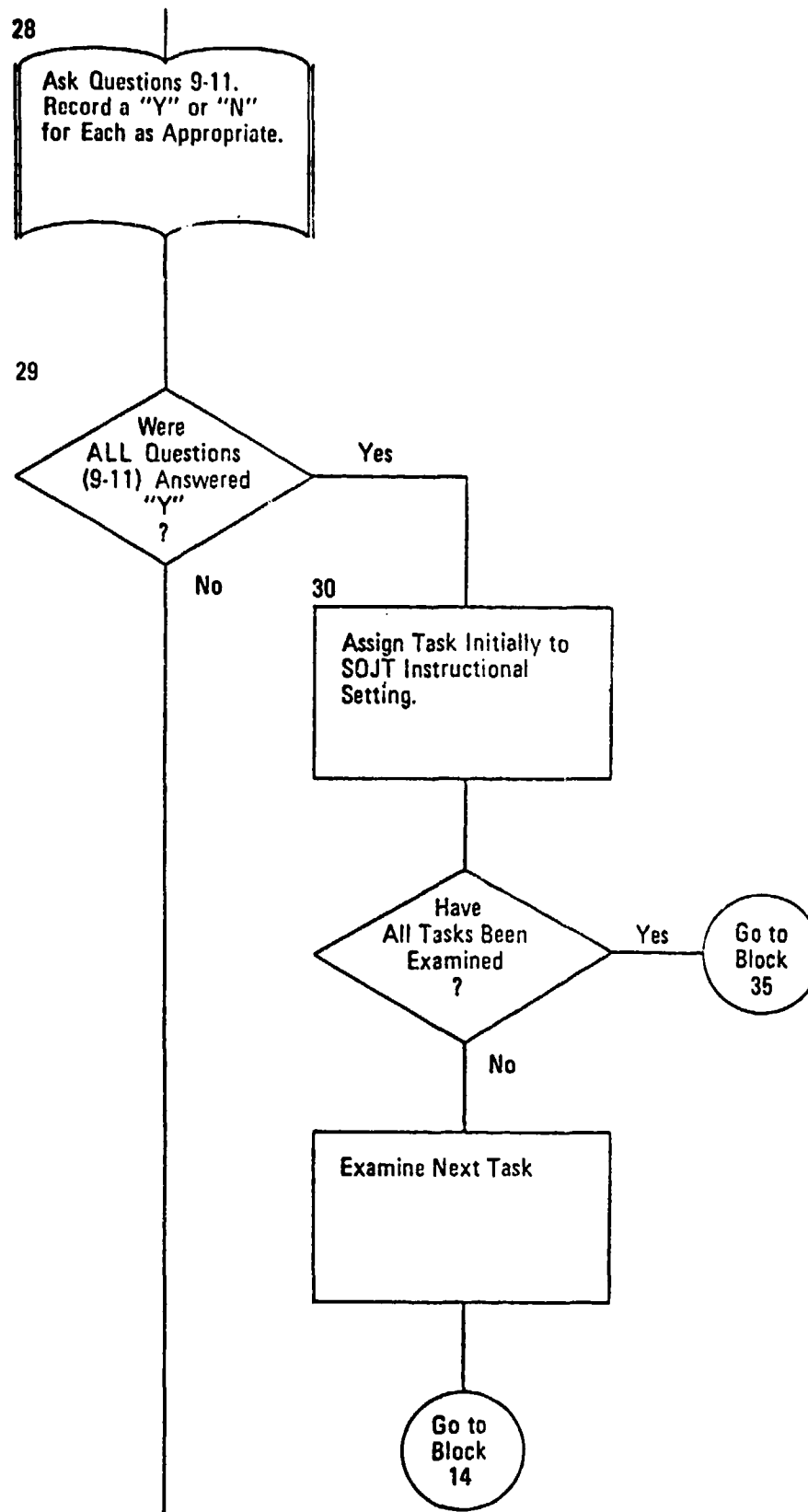


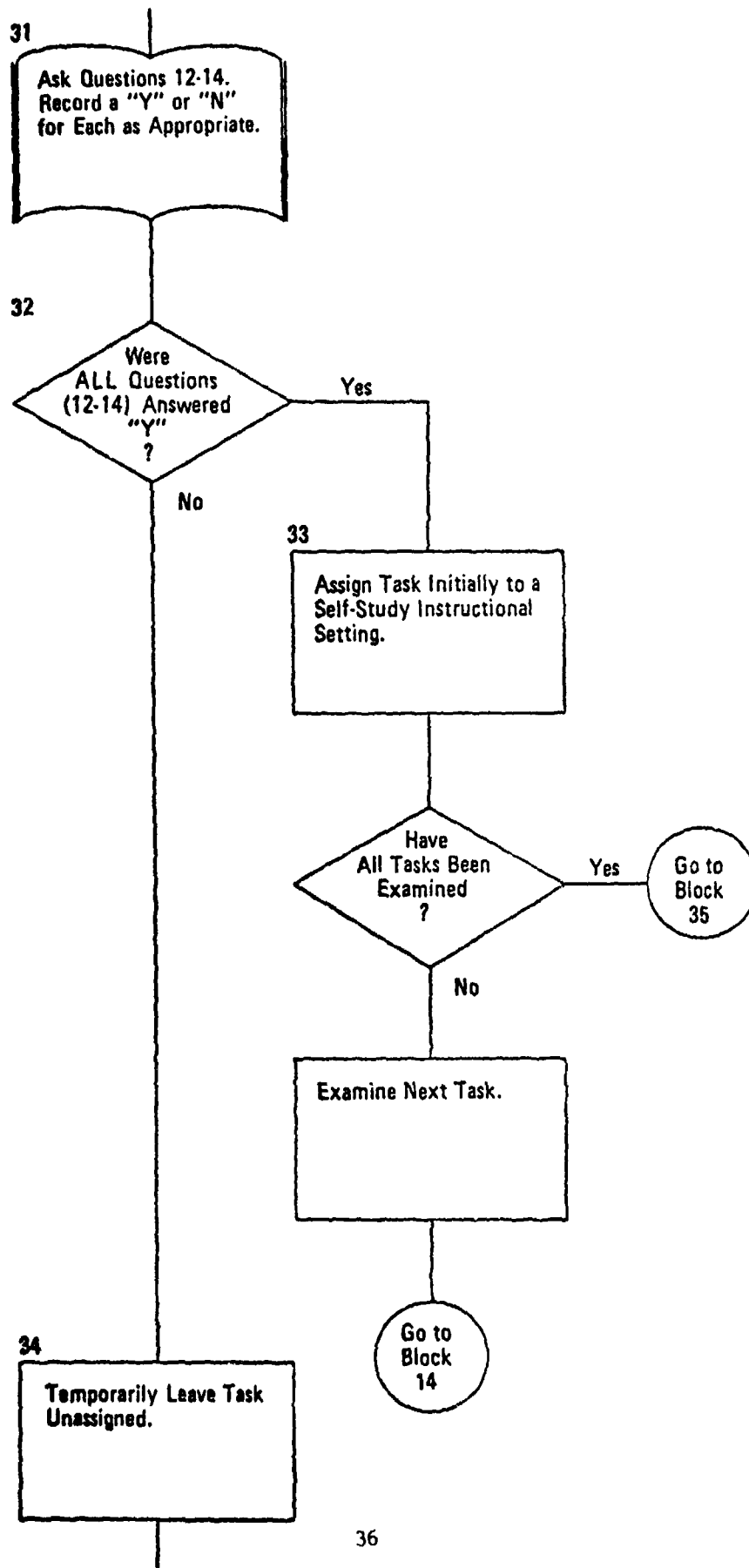


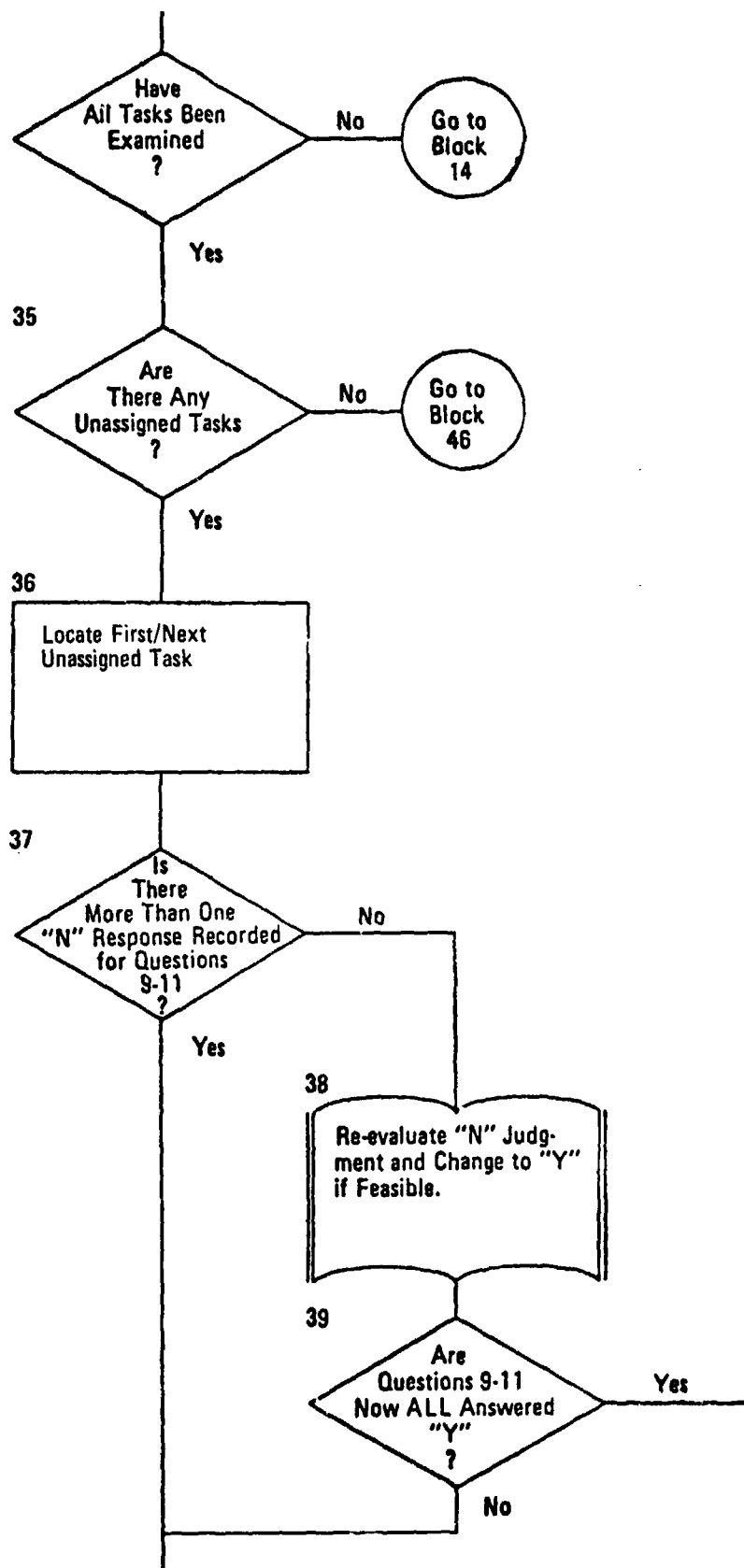


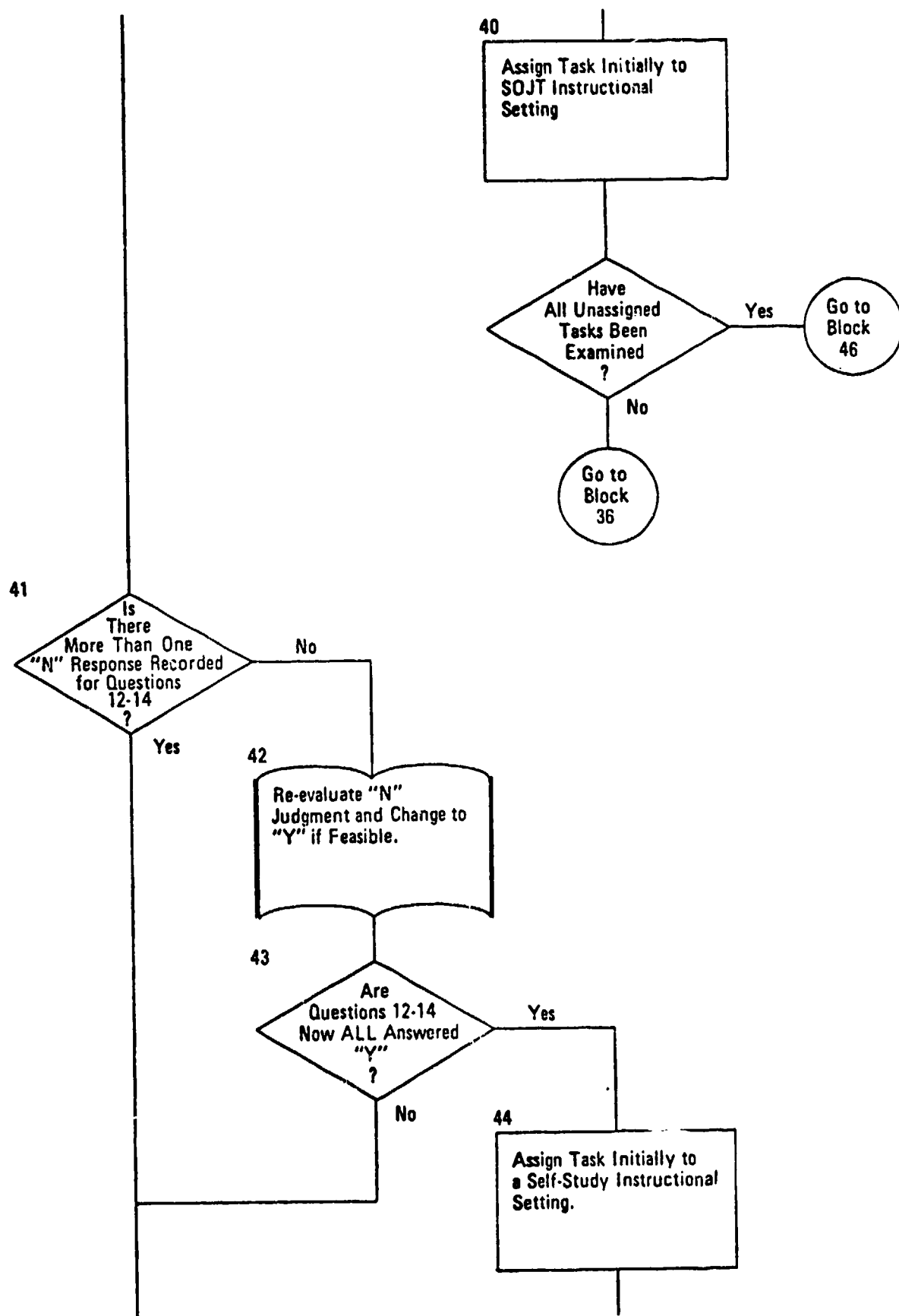


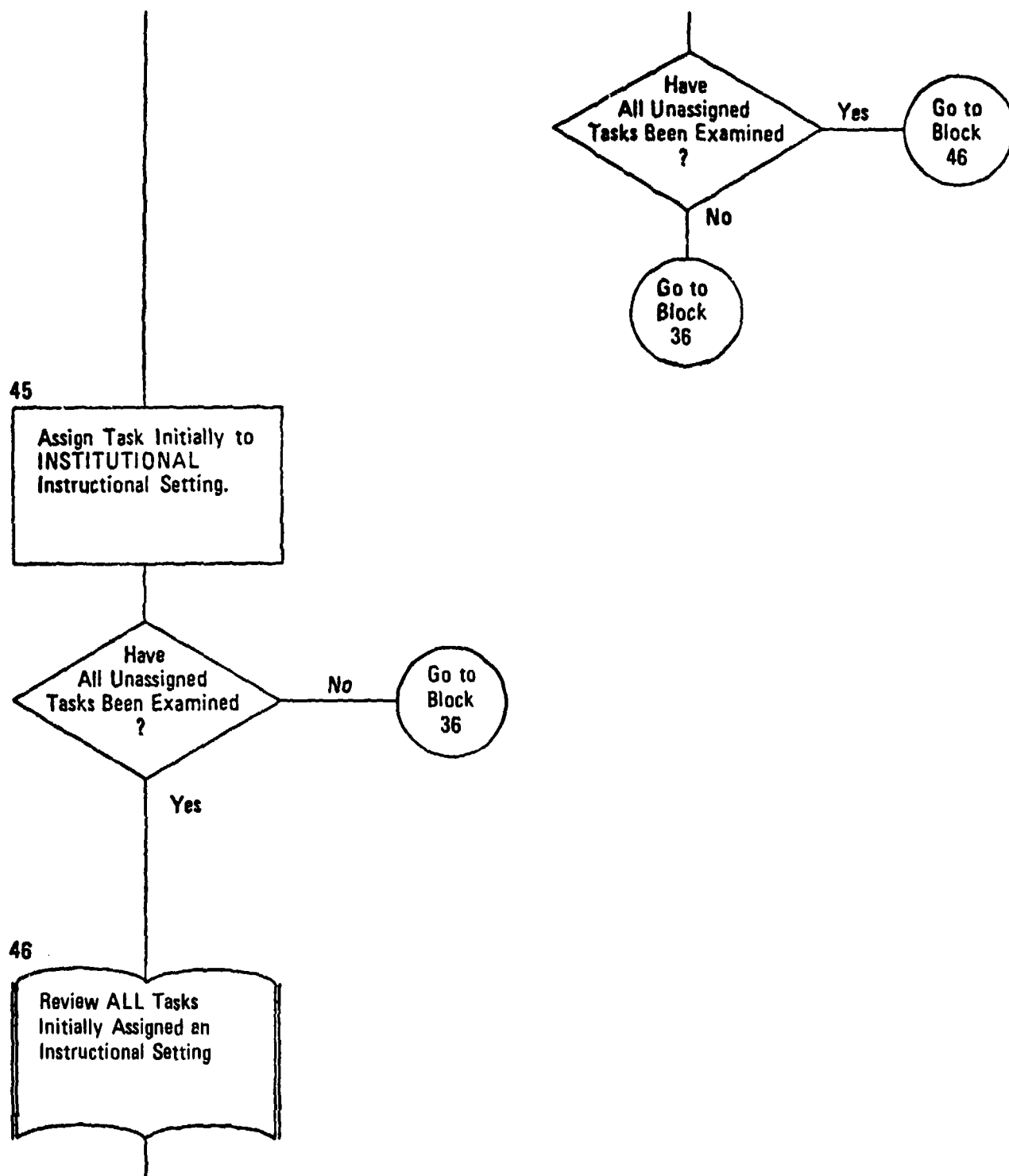


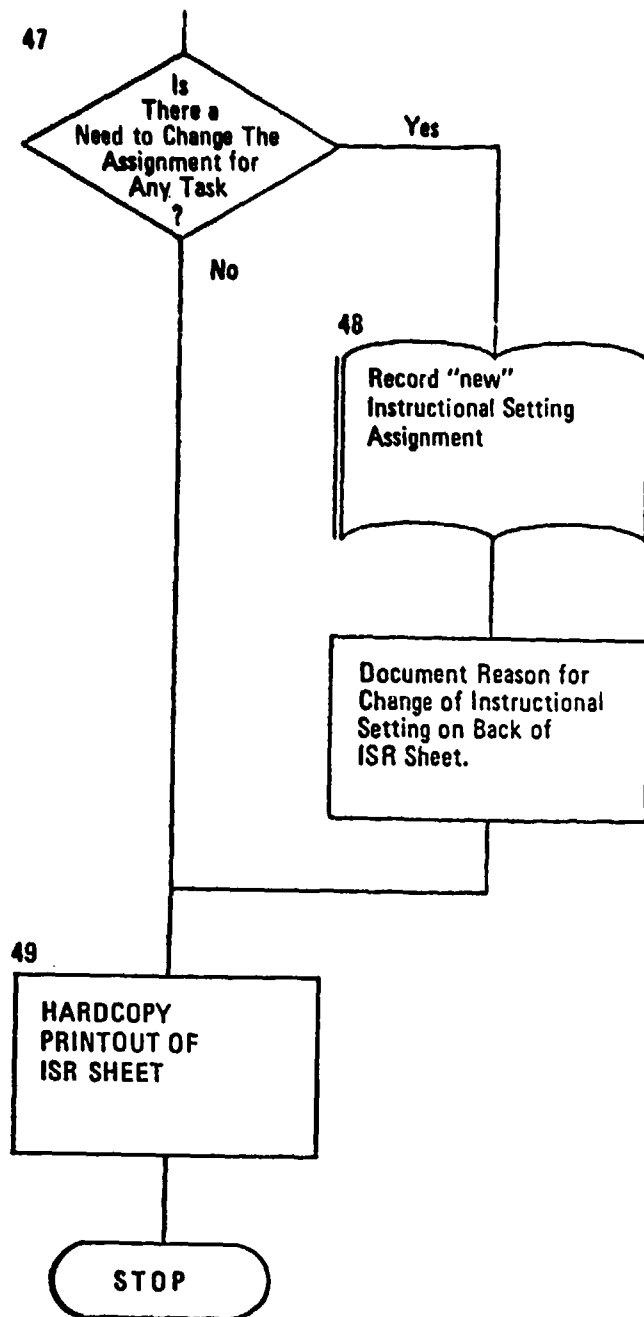












Section IV

VARIABLES USED IN THE PROGRAMMING DESIGN GUIDE

This section of the Programming Design Guide provides an alphabetical listing of variables used in the program. Generally, the variable names are self-explanatory. However, where needed, an explanation of what the variable is used for is provided.

Keep in mind that these variable names are used only to communicate with programmers who are using the Programming Design Guide. Feel free to rename any variable.

| | |
|------------------|---|
| DP | A numeric variable used to index the duty position array. |
| DPNEW | A numeric variable used to count the number of duty positions during the modification process. |
| \$DUTYCODE | An array of alphanumeric variables used to define the duty positions. |
| \$DUTYCODE2 | A temporary array of alphanumeric variables used in the program when the user is modifying the duty position designations. |
| DUTYCODE_MAXIMUM | A numeric variable which defines the maximum number of alphanumeric characters that can make up a duty position title. |
| \$ESTIMATE | Temporary variable that stores yes/no indicating whether percentage performing task is an estimate or not. |
| FIRST_TIME | Variable used to determine if the first unassigned task is being re-evaluated. |
| FSETTING | An array of numeric variables used to store the <u>final</u> designations of instructional settings. The numbers stored will be a 1, 2, or 3. |
| HP_CRITERION | Criterion value for percentage of soldiers who must perform a task before the task is identified as a "high performance task." |
| \$INPUTLINE,100 | An alphanumeric variable that is to store temporarily the user's input duty code designation. It is limited to 100 characters. |

\$INSTR_SETTING (3,20) An alphanumeric array of 3 variables each of which contains one of the instructional settings.

\$INSTR-SETTING(1) = "Institution"

\$INSTR-SETTING(2) = "S O J T" (supervised on-the-job training)

\$INSTR-SETTING(3) = "Self-study"

ISR_% An array of numeric variables used to store the actual (as opposed to estimated) percentages of soldiers who perform given tasks.

ISR_%E An array of numeric variables used to store the estimated (as opposed to actual) percentages of soldiers who perform the given tasks.

ISR_DUTY An array of numeric variables used to store which tasks are performed by each duty position.

ISR_QUESTION An array of numeric variables used for recording the responses to the 14 questions.

MAXIMUM_DUTY_POSITIONS A numeric variable which defines the maximum number of duty positions that can be included in the program.

MAXIMUM_TASKS A numeric variable which defines the maximum number of tasks that can be included in the program.

\$MOSCODE An alphanumeric variable used to store an MOS. May not be longer than 10 characters in length.

NEW_S Variable used to hold the changed value of an instructional setting.

NOCOUNT Counter of "NO" responses to a specific question.

NUMBER_OF_TASKS A numeric variable in which the number of tasks in the MOS (for a skill level) is recorded.

PERFORMS Indicates if task (yes/no) is performed in a specific duty position.

Q Counter for keeping track of which questions are being examined.

S Counter for keeping track of which instructional setting is being reviewed.

SETTING An array of numeric variables used to store, by task, the initial designations of instructional settings. The numbers stored will be a 1, 2, or 3.

| | |
|------------------|---|
| \$SETTING | Variable used for storing the specific instructional setting. 1 = institution 2 = SOJT (Supervised On-the-Job Training) 3 = Self-study |
| SKILL | A numeric variable used to record the skill level of the MOS being treated. The numeric value is 1, 2, 3, or 4. |
| TASK | A numeric variable used to index the array of tasks. |
| \$TASKCODE | An alphanumeric string used to define a task title. The string cannot be longer than TASKCODE_MAXIMUM in length. |
| TASKCODE_MAXIMUM | A numeric variable which defines the maximum number of alphanumeric characters that make up a task title. |
| WORK | Temporary variable used for branching |
| WHICH | Variable that holds the number of the specific question being re-evaluated. |

Section V

SETUP MATERIAL

To facilitate the programming of the computer version of the Job Aid for Selecting Instructional Settings, it is necessary that you first program (in your programming language) setup material. A guide for the necessary setup material is shown below. You must, of course, establish your own value for MAXIMUM TASKS, MAXIMUM DUTY POSITIONS, and NUMBER OF DUTY POSITIONS. In addition, you will provide your own task ID numbers and task titles for \$TASKCODE(1) thru \$TASKCODE(n) -- limit 40 characters -- and your duty positions for \$DUTYCODE(1) thru DUTYCODE(n) -- limit 30 characters.

```

SET          MAXIMUM_TASKS = 24
SET          MAXIMUM_DUTY_POSITIONS = 15
SET          TASKCODE_MAXIMUM = 40
SET          DUTYCODE_MAXIMUM = 30
$STRING      $TASKCODE(MAXIMUM_TASKS), TASKCODE_MAXIMUM
$STRING      $DUTYCODE(MAXIMUM_DUTY_POSITIONS), DUTYCODE_MAXIMUM
$STRING      $DUTYCODE2(MAXIMUM_DUTY_POSITIONS, DUTYCODE_MAXIMUM)
$STRING      $MOSCODE, 10
ARRAY        ISR_DUTY(MAXIMUM_DUTY_POSITIONS, MAXIMUM_TASKS)
ARRAY        ISR%(MAXIMUM_TASKS)
ARRAY        ISR%_E(MAXIMUM_TASKS)
ARRAY        SETTING(MAXIMUM_TASKS)
ARRAY        FSETTINGS(MAXIMUM_TASKS)
ARRAY        ISR_QUESTION(14, MAXIMUM_TASKS)
$STRING      $INSTR_SETTING(3), 20
$SET         $INSTR_SETTING(1) = "INSTITUTIONAL"
$SET         $INSTR_SETTING(2) = "S O J T"
$SET         $INSTR_SETTING(3) = "SELF STUDY"
SET          NUMBER_OF_TASKS = 24

$SET         $TASKCODE(1) = 574-2058   Operate Radio Test Set AN/VRM-1 to
                                         Test Modules in AN/VRC-12 Series
                                         Radio Sets

$SET         $TASKCODE(2) = 587-0025   Repair Radio Set, AN/PRC-25/77

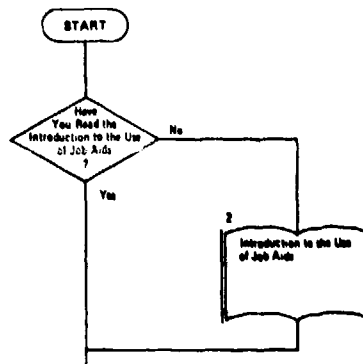
$SET         $TASKCODE(3) = 587-0032   Systems Troubleshooting Radio Set,
                                         AN/VRC-12 including C-2742/VRC to a
                                         Defective Component, Cable or
                                         Accessory

$SET         $TASKCODE(n) = 587-1027   Verify installation of Radio Set
                                         AN/VRC-46 in a Tracked Vehicle

```

\$SET NUMBER_OF_DUTY_POSITIONS = 2
\$SET \$DUTYCODE(1) = Support Mechanic
\$SET \$DUTYCODE(2) = Special Forces Mechanic
 .
 .
 .
\$SET \$DUTYCODE(n) =

Section VI
PROGRAMMING SPECIFICATIONS

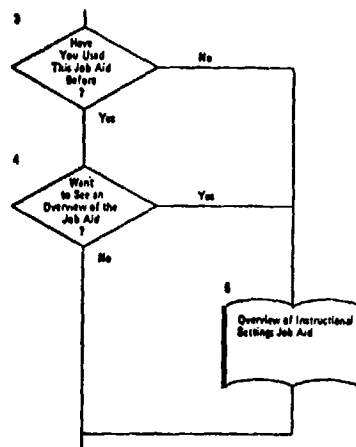


| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|---|----------|
| 1a | SHOW | Have you read the Introduction to the Job Aids? | |
| | DECIDE | block3a, block2a | |
| 2a | SHOW | (text2a) | |
| | WAIT | block1a | |

(text2a)

The Introduction to the Job Aids is presently contained in Chapter I of the booklet, Supplemental Guide: Sources Information for On-Line Implementation of ISD I.5 Select Instructional Setting, which can be obtained from your supervisor.

Sign off the computer and obtain this Supplemental Guide. After reading it, sign back on to the computer to continue.



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|---|---|
| 3a | SHOW | Have you used this Job Aid before? Enter Y or N. If you want to see a previous display, enter B (for BACK). | |
| | DECIDE | block4a, block5a, block1a | |
| 4a | SHOW | Do you want to see an overview of the Job Aid and instruction in using this computer program? | |
| | DECIDE | block5a, block6a, block3a | |
| 5a | SHOW | (text5a) | |
| | WAIT | block3a | |
| 5b | SHOW | | ***programmer--provide instruction (text) for sign- ing on and off your system. |
| | WAIT | block5a | |
| 5c | SHOW | (text5c) | |
| | WAIT | block5b | |
| 5d | SHOW | (text5d) | |
| | WAIT | block5c | |
| 5e | SHOW | text5e | |
| | WAIT | block5d | |
| 5f | SHOW | | ***programmer--provide instruction (text) for answering questions. |
| | WAIT | block5e | |

(text5a) To use this Job Aid you must know how to interact with the computer. Specifically, you will need to know:

- (1) How to sign on and off the computer system.
- (2) How to advance to new material.
- (3) When and how to review previously viewed material.
- (4) When additional help is available and how this help can be accessed.
- (5) How to answer questions presented by the computer.
- (6) When and where off-line guidance is available.

#PRESS NEXT# FOR FURTHER INFORMATION ON EACH OF THE ABOVE.

(text5c) HOW TO ADVANCE TO NEW MATERIAL

In all cases where there is only textual material being presented, you can signal the computer that you are ready to go to new material by #PRESS NEXT#.

(text5d) TO REVIEW PREVIOUSLY VIEWED MATERIAL

For some parts of the program you will be allowed to review previously viewed material if you so desire. Whenever the review option is available, you will see on your display "BACK." If you wish to exercise the review option #PRESS BACK#.

If the review option is requested when not available, "BACK not available" will appear on your display.

(text5e) ADDITIONAL HELP

In a few displays for the program, additional assistance is available for responding to a question asked by the computer. Whenever additional assistance is available, you will see on your display, "HELP". If you wish to exercise this option, #PRESS HELP#.

If the "HELP" option is requested when not available, "HELP not available" will appear on your display.

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|--|----------|
| 5g | SHOW | (text5g) | |
| | WAIT | block5f | |
| 5h | SHOW | Would you like to review the instruction on using this program? | |
| | DECIDE | block5a, block5i, block5g | |
| 5i | SHOW | #PRESS NEXT# for an overview of the Instructional Settings Job Aid | |
| | SHOWB | Guide reference pages 3-4. | |
| | WAIT | block5h | |
| 5j | SHOWB | (text5j) | |
| | WAIT | block5i | |
| 5k | SHOWB | (textk) | |
| | WAIT | block5j | |
| 5m | SHOWB | (text5m) | |
| | WAIT | block5k | |

(text5g)

OFF-LINE GUIDANCE

In some cases, "MANUAL, pp _ _ _" will appear on your display. This will usually indicate that a series of textual material is included in an off-line manual as well as being in the computer. You may find the manual particularly useful for reviewing material or for getting a wider perspective than can be obtained on the computer.

(text5j)

OBJECTIVE

1. Given a list of tasks selected for training within a single skill level, select the most appropriate instructional setting for training each task to the Soldier's Manual Standard. (Qualification Training)
2. Record the basis for each instructional setting selection.

(text5k)

PURPOSE

The purpose of this aid is to help you choose instructional settings (training locations) for tasks selected for training within each skill level. Due to advancements in instructional technology, it is often more cost-beneficial and efficient to train tasks in a non-institutional (extension) setting. This aid is designed to help you identify as many tasks as possible for which extension training is appropriate.

(text5m)

PRODUCT

This job aid will result in a listing of all critical tasks in which each task is assigned for training to one of the following instructional settings:

- a. Institution (resident school training)
- b. Supervised On-the-Job Training (SOJT)
- c. Self-study

This output will be especially useful in the preparation of the Commander's Manual.

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|----------|----------|
| 5n | SHOW | (text5n) | |
| | WAIT | block5n | |
| 5o | SHOW | (text5o) | |
| | WAIT | block5n | |
| 5p | SHOW | (text5p) | |
| | WAIT | block5o | |
| | | | |

(text5n) OVERVIEW OF MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING

- Step 1. Tasks selected for training are categorized by duty position.
- Step 2. Task performance data is obtained and recorded for each task. That is:
- a. In which duty position is the task performed?
 - b. What percentage of soldiers perform the task?

(Continued)

(text5o) OVERVIEW OF MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING (Continued)

- Step 3. Initial assignment of the task to one of three instructional settings (institution, supervised on-the-job training, or self-study) is made based on the answers to the following 14 questions:
- (1) Is task a common skill level task?
 - (2) Is task performed by a high percentage of soldiers?
 - (3) Is task performed in a similar manner in various duty positions and units?

(Continued)

(text5p) OVERVIEW OF MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING (Continued)

- Step 3. (Continued)
- (4) Is proficiency in task performance retained over time? (i.e., not easily forgotten)
 - (5) Does task require considerable theoretical knowledge?
 - (6) Must the task be performed immediately on entry to the job?
 - (7) Is the task a prerequisite for learning to perform other school trained tasks?

(Continued)

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|----------|----------|
| 5q | SHOW | (text5q) | |
| | WAIT | block5p | |
| 5r | SHOW | (text5r) | |
| | WAIT | block5q | |
| 5s | SHOW | (text5s) | |
| | WAIT | block5r | |

(text5q) OVERVIEW OF MAJOR STEPS IN SELECTING INSTRUCTIONAL
SETTING (Continued)

Step 3. (Continued)

- (8) Is training equipment and/or facilities only available at the school?
- (9) Is the equipment required for individual training of the task in the unit available at most units?
- (10) Are personnel with the necessary expertise to conduct training of the task available at most units?

(Continued)

(text5r) OVERVIEW OF MAJOR STEPS IN SELECTING INSTRUCTIONAL
SETTING (Continued)

Step 3. (Continued)

- (11) Do Operational requirements at most units allow sufficient time for the soldier to receive training in the unit?
- (12) Can the task be learned with very little supervision?
- (13) Does the soldier's schedule allow sufficient time for independent study?
- (14) Can everything required for training (which is not already available in the unit) be included in the exportable training package at a cost competitive with school (institution) training?

(text5s) OVERVIEW OF MAJOR STEPS IN SELECTING INSTRUCTIONAL
SETTING (Continued)

The complete list of questions from Step 3 is not necessarily asked for each task. Questions are asked only until a decision is reached for task assignment to a particular instructional setting.

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|-----------|----------|
| 5t | SHOW | (text5t) | |
| | WAIT | block5s | |
| 5u | SHOW | (text5u) | |
| | WAIT | block5t | |
| 5v | SHOW | (text5v) | |
| | WAIT | block5u | |
| 5w | SHOW | (text5w) | |
| | WAIT | block5v | |
| 5x | SHOW | (text5x) | |
| | WAIT | block5w | |
| 5y | SHOW | (text5y) | |
| | WAIT | block5x) | |
| 5z | SHOW | (text5z) | |
| | WAIT | block5y | |
| 5aa | SHOW | (text5aa) | |
| | WAIT | block5z | |

(text5t) OVERVIEW OF MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING (Continued)

Step 4. Administrative review and final selection of instructional setting.

In Step 3, tasks are assigned initially to one of the three instructional settings. In this step each task is reviewed to determine if the initial assignment is still the best instructional setting on the basis of expert opinion. In the review of each task, questions of the type shown on the following displays are asked:

(text5u) (1) Have so many tasks been assigned to SOJT or Self-Study that there is not enough time to train all the tasks before they must be performed?

(text5v) (2) Have so many tasks been assigned to SOJT that units can't handle the load?

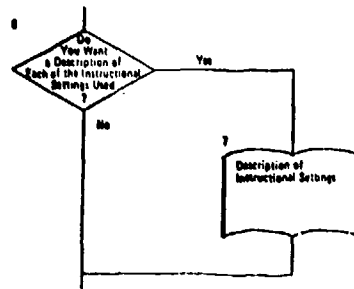
(text5w) (3) Have so few tasks been assigned to a particular setting that administrative costs outweigh the advantages of training so few tasks in this instructional setting?

(text5x) (4) Would resource and time constraints in the development of new training programs delay the onset of critically needed training?

(text5y) (5) Are there any other reasons why the initially selected instructional setting should be changed?

(text5z) After reviewing each task and asking questions similar to those just shown, any indicated changes in instructional setting is made. The rationale for each change is to be carefully documented.

(text5aa) The task listing with the final selections of instructional settings is submitted to the supervisor for review and revision.



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|--|----------|
| 5bb | SHOW | Would you like to review the over- view for this Job Aid again? | |
| | SHOWB | Guide reference pages 3-4. | |
| | DECIDE | block5i, block6a | |
| 6a | SHOW | (text6a) | |
| | DECIDE | block7a, block8a, block4a | |
| 7a | SHOW | (text7a) | |
| | SHOWB | Guide reference pages 5-6. | |
| | WAIT | block6a | |
| 7b | SHOW | (text7b) | |
| | WAIT | block7a | |
| 7c | SHOW | (text7c) | |
| | WAIT | block7b | |

(text6a) The instructional setting will often determine both the location and manner in which instruction on a task is to take place. Selecting the most appropriate instructional setting is important for several reasons. Among them are:

- Soldiers learn tasks better in the proper setting and retain them longer.
- With training requirements increasing in a time of decreasing resources, the best possible use must be made of our trainers and our training dollars.

(text7a) The three instructional settings used in this Job Aid are:

- Institution (Inst)
- Supervised on-the-job training (SOJT)
- Self-study

Do you want a description of each of these instructional settings?

(text7b) Institution(INST)

Training conducted at TRADOC resident schools and includes:

OSUT - One Station Unit Training

PNCOC - Primary Noncommissioned Officer Course

BNCOC - Basic Noncommissioned Officer Course

ANCOC - Advanced Noncommissioned Officer Course

Training is always conducted under supervision of qualified instructors.

Press #NEXT# for description of Supervised On-The-Job Training (SOJT)

(text7c) Supervised On-The-Job-Training (SOJT)

-- Training is conducted at the soldier's unit

-- Training is supervised by best qualified NCOs in unit.

Press #NEXT# for description of Self-Study

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|----------|----------|
| 7d | SHOW | (text7d) | |
| | WAIT | block7c | |
| 7e | SHOW | (text7e) | |
| | WAIT | block7d | |
| 7f | SHOW | (text7f) | |
| | WAIT | block7e | |
| 7g | SHOW | (text7g) | |
| | WAIT | block7f | |

(text7d)

Self-Study

Training administered during individuals own time, usually at the soldier's unit, and includes:

- Self-teaching exportable packages (STEP)
- Training Extension Courses
- Job Performance Aids
- Study Guides
- Correspondence Courses
- Films, tapes, etc.

Little supervision required

(text7e)

Press #NEXT# to see the advantages and disadvantages of the three instructional settings.

(text7f)

INSTITUTION

Advantages - Usually best setting for training common skill level tasks or tasks that are performed by large percentage of soldiers in the MOS/skill level

- Sophisticated training resource and expertise available

Disadvantages - Lack of real world environment
- High cost of soldier's housing and travel
- Time is spent away from job assignment

(text7g)

SUPERVISED ON-THE-JOB-TRAINING

Advantages - Effective for training tasks that can be learned faster or better with hands-on experience

Disadvantages - May tie up unit's equipment and thus equipment may not be available for operational use
- May overburden supervisors
- Reduces time available in unit for operational requirements

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|----------|----------|
| 7h | SHOW | (text7h) | |
| | WAIT | block7g | |
| 7i | SHOW | (text7i) | |
| | WAIT | block7h | |

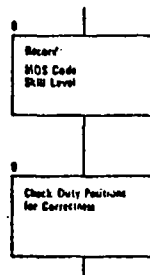
(text7h)

SELF-STUDY

- Advantages
- Effective for training tasks which can be learned without an instructor or where little supervision is required
 - Can be accomplished at trainee's convenience
- Disadvantages
- If study occurs during normal duty hours, this type of training may reduce time available in unit for operational requirements.
 - May require soldier to devote considerable off-duty time to study

(text7i)

Tables which provide a comparison of the description of each instructional setting and the advantages and disadvantages of each are shown in the Supplemental Guide: Source Information for On-Line Implementation of ISD I.5 Select Instructional Setting on page 6. (Hereafter referred to as Supplemental Guide.)



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|--|---|--|
| 8a | SHOW \$ACCEPT SHOW ACCEPT SHOW DECIDE | What MOS are you working with? \$MOSCODE,10 What is the skill level? SKILL,1,4 You are working with MOS /\$MOSCODE/ and the skill level is /SKILL/. Is this correct? block9a, block8a, block6a | |
| 9a | SHOW WAIT | (text9a) | |
| 9b | ITERATE SHOW NEXT SHOW DECIDE | DP , 1 , NUMBER_OF_DUTY_POSITIONS Duty position /DP/ is /\$DUTYCODE(DP)/ DP Are these duty positions correct? block10a, block9c | ***roll on all duty position designators onto terminal. The end product should be a list of duty position designators. |
| 9c | SHOW WAIT | (text9c) | |

(text9a) In previous ISD Blocks it was established that there are
/NUMBER_OF_DUTY_POSITIONS/ duty positions.

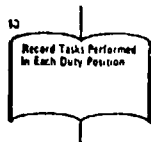
#PRESS NEXT# to see a list of the duty positions that were
recorded in earlier ISD Blocks.

(text9c) It is extremely important that before you make any additions,
deletions, or changes in duty positions that you check with:

- Your supervisor
- The individual(s) who prepared the Critical Task List
(ISD I.2)
- The individual(s) who performed task analysis (ISD I.3).
If they agree with your suggested additions, deletions, or
changes you will be allowed to enter them into the terminal.

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|---|-------------------------------------|
| 9d | SHOW | Do you still want to make any additions, deletions, or changes in duty position designations? | |
| | DECIDE | block9e, block10a | |
| 9e | ITERATE | DP, 1, NUMBER_OF_DUTY_POSITIONS | ****copy\$DUTYCODE's to \$DUTYCODE2 |
| | \$SET | \$DUTYCODE2(DP) = \$DUTYCODE(DP) | |
| | NEXT | DP | |
| | SET | DPNEW = 0 | |
| | ITERATE | DP, 1, NUMBER_OF_DUTY_POSITIONS | |
| 9f | SHOW | Duty position /DP/ is /\$DUTYCODE2(DP)/. Is this correct? | |
| | DECIDE | block9i, block9g | |
| 9g | SHOW | Do you want to delete this duty position? | |
| | DECIDE | block9j, block9h | |
| 9i | SHOW | Enter the correct duty position designation. | |
| | ACCEPT | \$INPUTLINE,100 | |
| | \$SET | \$DUTYCODE2(DP) = \$INPUTLINE | |
| | GOTO | block9f | |

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|----------|--|----------|
| 9i | SET | DPNEW = DPNEW +1 | |
| | \$SET | \$DUTYCODE(DPNEW) = \$DUTYCODE2(DP) | |
| 9j | NEXT | DP | |
| | SET | NUMBER_OF_DUTY_POSITIONS = DPNEW | |
| 9k | SHOW | Are there any additional duty position designations that should be added? | |
| | DECIDE | block9m, block9o | |
| 9m | GOTO | block9n IF NUMBER_OF_DUTY_POSITIONS ≥ MAXIMUM_DUTY_POSITIONS | |
| | SHOW | Enter a new duty position designation. | |
| | SET | NUMBER_OF_DUTY_POSITIONS = NUMBER_OF_DUTY_POSITIONS +1 | |
| | \$ACCEPT | \$INPUTLINE,100 | |
| | \$SET | \$DUTYCODE(NUMBER_OF_DUTY_POSITIONS) = \$INPUTLINE | |
| 9n | SHOW | There is no more space available for duty code designations. #PRESS NEXT# to continue | |
| | WAIT | | |
| 9o | SHOW | #PRESS NEXT# to see a corrected list of duty position designations. | |
| | WAIT | | |



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|---|---|
| 9p | ITERATE | DP, 1, NUMBER_OF_DUTY_POSITIONS | ****roll on all duty position designators onto terminal. The end product should be a list of duty position designators. |
| | SHOW | Duty position /DP/ is /\$DUTYCODE(DP)/ | |
| | NEXT | DP | |
| | SHOW | Are these duty positions correct? | |
| | DECIDE | block10a, block9e | |
| 10a | SHOW | The next operation is to determine which tasks are performed in each duty position. | |
| | ITERATE | TASK, 1, NUMBER_OF_TASKS | |
| 10b | ITERATE | DP, 1, NUMBER_OF_DUTY_POSITIONS | |
| | SHOW | Does the /\$DUTYCODE(DP)/ perform this task: /\$TASKCODE(TASK)/ | |
| 10c | SET | ISR_DUTY(DP,TASK) = 1 | ****indicate a "yes" response ****process the next duty position. |
| | GOTO | block10e | |
| 10d | SET | ISR_DUTY(DP,TASK) = 0 | |

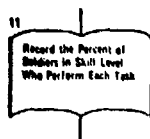
| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|-----------------------------------|--|
| 10e | NEXT | DP | <p>****show the question, the task and a table showing each duty position number and whether user claimed soldier performed or not in each duty position.</p> <p>Programmer should modify format to fit computer system.</p> |
| | SHOW | (text10e) | |
| | ITERATE | DP, 1, NUMBER_OF_DUTY_POSITIONS | |
| | GOTO | block10f IF ISR_DUTY(DP,TASK) = 1 | |
| | GOTO | block10g IF ISR_DUTY(DP,TASK) = 0 | |
| 10f | SET | \$PERFORMS = "yes" | |
| | GOTO | block10h | |
| 10g | SET | \$PERFORMS = "no" | |
| 10h | SHOW | (text10e) | ****show only /DP/ & /\$PERFORMS/ |
| | NEXT | DP | |
| 10i | NEXT | TASK | |

(text10e) Do you want to respecify the duty positions in which this task is performed?

/\$TASKCODE(TASK)/

| <u>DUTY POS</u> | <u>PERFORMS</u> | <u>DUTY POS</u> | <u>PERFORMS</u> |
|-----------------|-----------------|-----------------|-----------------|
| /DP/ | /\$PERFORMS/ | /DP/ | /\$PERFORMS/ |

Refer to duty position listing



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|-------------------------|----------|
| 11a | SHOW | (text11a) | |
| | SHOWB | Guide reference page 7. | |
| | WAIT | | |
| 11b | SHOW | (text11b) | |
| | WAIT | block11a | |
| 11c | SHOW | (text11c) | |
| | WAIT | block11b | |
| 11d | SHOW | (text11d) | |
| | WAIT | block11c | |
| 11e | SHOW | (text11e) | |
| | WAIT | block11d | |

(text11a) The next operation you will perform is to determine and record the percentage of soldiers in the skill level who perform each task. There are several sources which can provide this information. #PRESS NEXT# for a description of these sources. Remember, you will use one or more of these sources for entering the percentage of soldiers in the skill level who perform each task.

(text11b) CODAP GROUP SUMMARY REPORT

CODAP data, when available, are excellent for determining the percent of soldiers within the skill level who perform each task. However, it is likely that not all tasks represented in the skill level will be represented on the CODAP Report. Consequently, even when a CODAP Report is available, it will probably be necessary to supplement the data from the Report with data from other sources.

(text11c) FIELD SURVEY

Field Survey data are excellent for determining the percent of soldiers who perform each task. However, a field survey should only be conducted when CODAP data are not available (or badly out of date) and when there is sufficient time to conduct the survey. Guidance for conducting a field survey can be found in Chapter III of the Supplemental Guide.

(text11d) PANEL OF RECENT JOB INCUMBENTS

This represents a fair source of information for determining the percent of soldiers within the skill level who perform each task. See Chapter VI of the Supplemental Guide.

(text 11e) PANEL OF SUBJECT MATTER EXPERTS

Use this source only if none of the above sources are available. See Chapter VI of the Supplemental Guide.

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|---|------------------------------------|
| 11f | SHOW | (text11f) | |
| | SHOWB | Guide reference page 7. | |
| | WAIT | block11h | |
| 11g | ITERATE | TASK, 1, NUMBER_OF_TASKS | |
| 11h | SHOW | What percentage of soldiers perform the task: /\$TASKCODE(TASK)/? Enter a value between 1 - 100 | |
| | ACCEPT | ISR_%(TASK), 1, 100 | |
| | SHOW | Is this percentage value an estimate (i.e., <u>not</u> CODAP or field survey results)? | |
| | DECIDE | block11i, block11j, block11h | |
| 11i | SET | ISR_%(TASK) | ****remember that it's an estimate |
| | GOTO | block11k | |
| 11j | SET | IRS_%(TASK) = 0 | ****indicate an exact percentage |
| 11k | NEXT | TASK | |

(textl1f)

As a last resort, you may have to use your own judgment. You will now enter the percentage of soldiers in the skill level who perform each task.

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|------------------------------|---|
| 11m | SHOW | (text11m) | ***text11m is a part of a table. Show the question and the headings for a table. The data to be shown in the table is text11p |
| | ITERATE | TASK, 1, NUMBER_OF_TASKS | |
| | GOTO | block11a IF ISR_XE(TASK) = 1 | |
| | GOTO | block11o IF ISR_XE(TASK) = 0 | |
| 11n | SET | \$ESTIMATE = "Yes" | |
| | GOTO | block11p | |
| 11o | SET | \$ESTIMATE = "No" | |
| 11p | SHOW | (text11p) | ***text11p provides the data for the table set up in block11m |
| | NEXT | TASK | |
| | DECIDE | block11q, block12a, block11g | |

(text11m) Do you want to respecify these percentages?

| | <u>TASK</u> | <u>%</u> | <u>ESTIMATE</u> | <u>TASK</u> | <u>%</u> | <u>ESTIMATE</u> |
|-----------|-------------|----------|-----------------|-------------|----------|-----------------|
| (text11p) | * | ** | *** | * | ** | *** |
| | * | ** | *** | * | ** | *** |
| | * | ** | *** | * | ** | *** |
| | etc | etc | etc | etc | etc | etc |

NOTE TO PROGRAMMER: In the above table, replace the *, ** and *** as follows:

* = \$TASKCODE(TASK)
** = ISR_%(TASK)
*** = \$ESTIMATE(TASK)

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---|--|----------|
| 11q | ITERATE SHOW ACCEPT GOTO GOTO GOTO | TASK, 1, NUMBER_OF_TASKS (text11q) \$COMMAND, 1 block11r IF \$COMMAND = "Y" block11u IF \$COMMAND = "N" block12a IF \$COMMAND = "F" | |
| 11r | SHOW ACCEPT SHOW DECIDE | What percentage of soldiers perform /\$TASKCODE(TASK)/? ISR_(TASK), 1, 100 Is this percentage an estimate? block11s, block11t, block11r | |
| 11s | SET GOTO | ISR_(TASK) = 1 block11u | |
| 11t | SET | ISR_(TASK) = 0 | |
| 11u | NEXT GOTO | TASK block11m | |

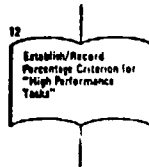
(text11q)

Percent Performing = /ISR_%(TASK)/

Do you want to change the percentage for task:

TASK
/\$TASKCODE(TASK)/?

ESTIMATE
/\$ESTIMATE/?



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|--|----------|
| 12a | SHOW | (text12a) | |
| | WAIT | block11m | |
| 12b | SHOW | (text12b) | |
| | WAIT | block12a | |
| 12c | SHOW | What is the criterion for a High Performance Task? | |
| | ACCEPT | HP_CRITERION, 1, 100, block12a | |
| | SHOW | The criterion for a high performance task is /HP_CRITERION/ percent performing or more. Is this correct? | |
| | DECIDE | block13a, block12c, block12a | |

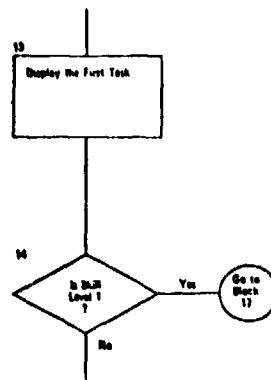
(text12a) Your next activity will be to establish the percentage criteria to use for classifying a task as a "high performance task."

"High Performance Tasks" are those tasks that are performed by a high percentage of job incumbents. High Performance Tasks are usually trained in the institutional instructional setting.

#PRESS NEXT# for sources of information on how to establish the percentage criteria for "High Performance Tasks."

(text12b) Sources of Information:

- Check with your supervisor. Your installation may have already established a certain percentage as the criterion for training a task in the institution.
- Check with subject matter experts working in other MOSs. Find out what value(s) they have used and their reasons for selecting that value.



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---|---|--|
| 13a | SHOW WAIT | (text13a) | |
| 13b | SHOW WAIT | (text13b) or (text13b-alt) block13a | ****If only a part of the task description is stored, use text13b-alt. Otherwise, use text13b. |
| 13c | SHOW WAIT | (text13c) block13b | |
| 13d | SHOW WAIT | (text13d) block13a | |
| 13e | ITERATE SET | TASK, 1, NUMBER_OF_TASKS SETTING(TASK) = 0 | ****indicates that task is unassigned. |
| 13f | ITERATE ITERATE SET NEXT NEXT | Q, 1, 14 TASK, 1, NUMBER_OF_TASKS ISR_QUESTION (Q,TASK) = 99 TASK Q | |
| 14a | GOTO | block17a IF SKILL = 1 | |

(text13a) We will now attempt to assign each task to a tentative instructional setting by asking certain questions. Questions are asked only until a decision is reached for task assignment to a particular instructional setting.

#PRESS NEXT# to learn the procedure that will be used for each question.

(text13b) FIRST: You will be shown the question and told what it is all about.

SECOND: You will be provided sources of information for answering the questions.

THIRD: You will again be shown the question. You will have the option of reviewing any previously seen "sources of information" before you answer the question.

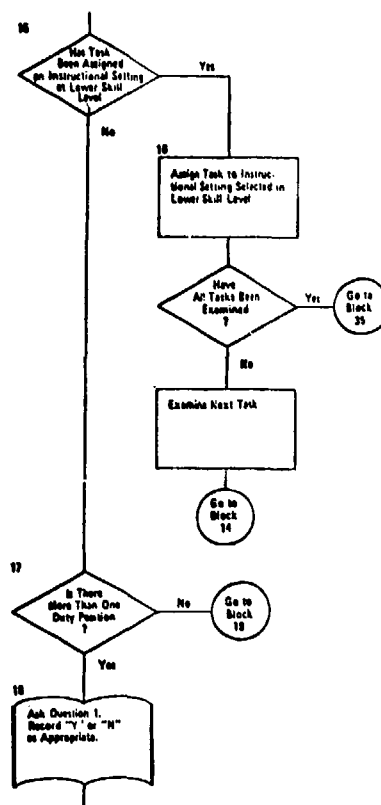
(text13b-alt) FIRST: You will be shown enough of the task so that you can identify it on your task list. At this same time, you will be shown the question and told what it is all about.

SECOND: You will be provided sources of information for answering the question.

THIRD: You will again be shown part of the task and the question. You will have the option of reviewing any previously seen "sources of information" before you answer the question.

(text13c) If you would like to see a complete list of the questions, refer to the Supplemental Guide, page 4. However, keep in mind that the complete list of questions is not necessarily asked for each task.

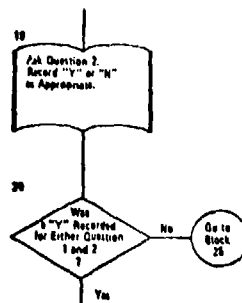
(task13d) #PRESS NEXT# for the first question.



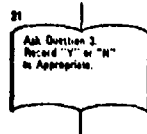
| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|---|----------|
| 15a | SHOW | /\$TASKCODE(TASK)/ Has the above task been assigned an instructional setting at a lower skill level? | |
| | DECIDE | block16a, block17a | |
| 16a | SHOW | (text16a) | |
| | ACCEPT | S, 1, 3 | |
| | SET | SETTING(TASK) = S | |
| | GOTO | block35a IF TASK = NUMBER_OF_TASKS | |
| | SHOW | #PRESS NEXT# to examine the next task. | |
| | NEXT | TASK | |
| 18a | GOTO | block39a IF NUMBER_OF_DUTY_POSITIONS = 1 | |

(text16a) Which instructional setting was it assigned? (ENTER THE NUMBER)

- 1 -- Institutional
- 2 -- Supervised on-the-job training (SOJT)
- 3 -- Self-study



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------------------------------------|--|---|
| 18a | SET ITERATE GOTO NEXT SET | ISR_QUESTION(1,TASK) = 0 DP, 1, NUMBER_OF_DUTY_POSITIONS block19a IF ISR_DUTY(DP,TASK) = 0 DP ISR_QUESTION(1,TASK) = 1 | ****default to "no" ****indicate "Y" for question 1. |
| 19a | GOTO SET GOTO | block19b IF ISR_%(TASK) ≥ HP_CRITERION ISR_QUESTION(2,TASK) = 0 block20a | ****Not a high performance task. |
| 19b | SET | ISR_QUESTION(2,TASK) = 1 | ****It is a high performance task. |
| 20a | SET GOTO | WORK = ISR_QUESTION(1,TASK)+ ISR_QUESTION(2,TASK) block25a IF WORK = 0 | |



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|-------------------------|----------|
| 21a | SHOW | (text21a) | |
| | WAIT | | |
| 21b | SHOW | (text21b) | |
| | SHOWB | Guide reference page 7. | |
| | WAIT | block21a | |
| 21c | SHOW | (text21c) | |
| | WAIT | block21b | |
| 21d | SHOW | (text21d) | |
| | WAIT | block21c | |
| 21e | SHOW | (text21e) | |
| | WAIT | block21d | |
| 21f | SHOW | (text21f) | |
| | WAIT | block21e | |
| 21g | SHOW | (text21g) | |
| | WAIT | block21f | |

(text21a) /\$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering the following question: Are the training requirements for this task essentially the same regardless of the mission, equipment allocation, geographical location, etc., of units in which the job incumbent is assigned? If task training requirements are much the same, an institution training setting should be strongly considered. On the other hand, if training requirements differ considerably between units or duty positions, training in the unit (SOJT or self-study) should be considered.

(text21b) SOURCES OF INFORMATION

Job performance measures or task performance descriptions developed in ISD I.3 Construct Job Performance Measures is an excellent source of equipment used in task performance. This will assist in determining whether equipment differences between units will have an effect on training requirements.

(text21c) SOURCES OF INFORMATION (continued)

TOE/MTOE and TDA is another excellent source of information concerning equipment allocation in various units.

(text21d) SOURCES OF INFORMATION (continued)

Training Manuals and supply bulletins used in conjunction with TOE should be considered as a good source of information.

(text21e) SOURCES OF INFORMATION (continued)

A panel of recent job incumbents can provide good information for answering this question. See Supplemental Guide for guidance in establishing and using this particular panel.

(text21f) SOURCES OF INFORMATION (continued)

Panel of subject matter experts. This also is a good source. See the Supplemental Guide for guidance in establishing and using a panel of subject matter experts.

(text21g) SOURCES OF INFORMATION (continued)

Your own judgment. Use only as a last resort or in conjunction with other sources.

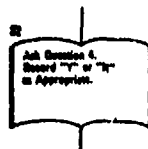
| BLOCK | COMMAND | TAG | COMMENTS |
|-------|-------------------------|--|----------|
| 21h | SHOW DECIDE | (text21h) block21b, block21i | |
| 21i | SHOW SHOWB DECIDE | (text21i) Guide reference page 7. block21j, block21k, block21b | |
| 21j | SET GOTO | ISR_QUESTION(3,TASK) = 1 block22a | |
| 21k | SET | ISR_QUESTION(3,TASK) = 0 | |

(text21h) Would you like to review the various sources of information before you answer the question?

(text21i) ANSWER THIS QUESTION

/\$TASKCODE(TASK)/

Are the training requirements for this task essentially the same regardless of the mission, equipment allocation, geographical location, etc., of units in which the job incumbent is assigned?



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|------------------------------|----------|
| 22a | SHOW | (text22a) | |
| | WAIT | block21a | |
| 22b | SHOW | (text22b) | |
| | SHOWB | Guide reference page 8. | |
| | WAIT | block22a | |
| 22c | SHOW | (text22c) | |
| | WAIT | block22b | |
| 22d | SHOW | (text22d) | |
| | WAIT | block22c | |
| 22e | SHOW | (text22e) | |
| | WAIT | block22d | |
| 22f | SHOW | (text22f) | |
| | WAIT | block22e | |
| 22g | SHOW | (text22g) | |
| | DECIDE | block22b, block22h | |
| 22h | SHOW | (text22h) | |
| | SHOWB | Guide reference page 8. | |
| | DECIDE | block22i, block22j, block22b | |

(text22a) /\$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: If this task is taught in the school (institution), will it still be remembered by the time the soldier has to perform the task on the job? We all know that there are some tasks we remember how to do more easily than others. Factors which influence retention must be considered when you select the instructional setting. There is no point in training a task in the institution if the soldier can't remember how to perform the task when he arrives on the job. SOJT or self-study should be considered when training retention is likely to be low.

(text22b) The following are examples of factors to consider in answering this question:

Tasks for which the soldier has had previous civilian or military experience will usually be easily remembered (e.g., driving a vehicle).

(text22c) Tasks which the soldier considers important to remember will be better learned and more easily recalled.

(text22d) Some tasks require frequent opportunities for practice in order to retain task proficiency.

(text22e) In general, motor tasks (physical activities) are more easily remembered than mental tasks.

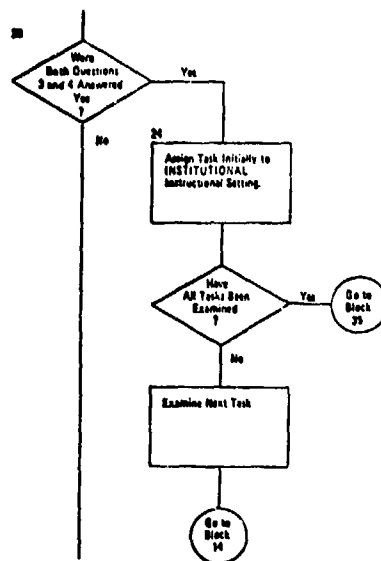
(text22f) Tasks which involve short regular procedures are more easily remembered than those for which there is no clear cut procedure to follow.

(text22g) Would you like to review the factors to consider when deciding whether the task is a high retention task?

(text22h) ANSWER THIS QUESTION

/\$TASKCODE(TASK)/

If this task is taught in the school (institution), will it still be remembered by the time the soldier has to perform the task on the job?



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|-----------------------------|---|--|
| 22i | SET GOTO | ISR_QUESTION(4, TASK) = 1 block23a | |
| 22j | SET | ISR_QUESTION(4, TASK) = 0 | |
| 23a | SET GOTO | WORK = ISR_QUESTION(3, TASK) + ISR_QUESTION(4, TASK) block25a IF WORK ≠ 2 | ****If not both "Y" answers |
| 24a | SET GOTO SHOW NEXT | SETTING(TASK) = 1 block35a IF TASK = NUMBER_OF_TASKS #PRESS NEXT# to examine the next task. TASK | ****Assign to institutional setting initially. |



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|-------------------------|--|----------|
| 25a | SHOW WAIT | (text25a) | |
| 25b | SHOW SHOWB WAIT | (text25b) Guide reference page 8. block25a | |
| 25c | SHOW WAIT | (text25c) block25a | |
| 25d | SHOW WAIT | (text25d) block25c | |
| 25e | SHOW WAIT | (text25e) block25d | |
| 25f | SHOW DECIDE | (text25f) block25b, block25g | |
| 25g | SHOW SHOWB DECIDE | (text25g) Guide reference page 8. block25h, block25i, block25b | |

(text25a) /\$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Is there a considerable amount of theory to be taught with this task?

(text25b) SOURCES OF INFORMATION

Output from ISD I.3 Construct Job Performance Measures, or ISD I.2 Conducting Task Analysis, provide a good source of information. Examine task descriptions to determine how the task is performed. This should provide an excellent insight into the amount of theoretical content that will be required for training the task.

(text25c) SOURCES OF INFORMATION (continued)

Training Manuals are an excellent source of information.

(text25d) SOURCES OF INFORMATION (continued)

Field survey of Job Supervisors is an excellent source if time for survey is available. See the Supplemental Guide for guidance in conducting a field survey.

(text25e) SOURCES OF INFORMATION (continued)

Panel of Recent Job Supervisors. Fair source. See the Supplemental Guide for guidance in establishing panel.

(text25f) Would you like to review the sources of information for this question before answering it?

(text25g) ANSWER THIS QUESTION

/\$TASKCODE(TASK)/

Is there a considerable amount of theory to be taught with this task?

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|------------------------------|----------|
| 25h | SET | ISR_QUESTION(5,TASK) = 1 | |
| | GOTO | block25j | |
| 25i | SET | ISR_QUESTION(5,TASK) = 0 | |
| 25j | SHOW | (text25j) | |
| | WAIT | block25a | |
| 25k | SHOW | (text25k) | |
| | SHOWB | Guide reference page 9. | |
| | WAIT | block25j | |
| 25m | SHOW | (text25m) | |
| | WAIT | block25k | |
| 25n | SHOW | (text25n) | |
| | WAIT | block25m | |
| 25o | SHOW | (text25o) | |
| | DECIDE | block25k, block25p | |
| 25p | SHOW | (text25p) | |
| | SHOWB | Guide reference page 9. | |
| | DECIDE | block25q, block25r, block25k | |

(text25j) /\$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Must this task be performed immediately on entry to the job (i.e., before it could be trained on the job)?

(text25k) SOURCES OF INFORMATION

Field Survey of Job Supervisors and/or Incumbents. Excellent source when time for survey is available and if information is not available through CODAP. See Supplemental Guide for guidance in conducting the survey.

(text25m) SOURCES OF INFORMATION (continued)

Panel of Recent Job Incumbents. Good source. See Supplemental Guide for guidance in selecting panel.

(text25n) SOURCES OF INFORMATION (continued)

Your own judgment. Use only if all other sources are unavailable.

(text25o) Would you like to review the sources of information for this question before answering it?

(text25p) ANSWER THIS QUESTION

/ \$TASKCODE(TASK) /

Must this task be performed immediately on entry to the job (i.e., before it could be trained on the job)?

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|-----------------------|---|----------|
| 25q | SET GOTO | ISR_QUESTION(6, TASK) = 1 block25r | |
| 25r | SET | ISR_QUESTION(6, TASK) = 0 | |
| 25s | SHOW WAIT | (text25s) | |
| 25t | SHOW WAIT | (text25t) block25s | |
| 25u | SHOW DECIDE | (text25u) block25v, block25w, block25t | |
| 25v | SET GOTO | ISR_QUESTION(7, TASK) = 1 block25x | |
| 25w | SET | ISR_QUESTION(7, TASK) = 0 | |
| 25x | SHOW SHOWB WAIT | (text25x) Guide reference page 9. | |

(text25s) /\$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Is this task a prerequisite for learning and/or performing other school trained tasks (i.e., must the soldier be able to perform this task in order to learn other tasks taught in the school)?

(text25t) SOURCES OF INFORMATION

Review of other tasks already assigned to resident school setting.

(text25u) ANSWER THIS QUESTION

/\$TASKCODE(TASK)/

Is this task a prerequisite for learning and/or performing other school trained tasks (i.e., must the soldier be able to perform this task in order to learn other tasks taught in the school)?

(text25x) /\$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Are equipment and/or facilities only available for training at the school?

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|--------------------------------|----------|
| 25y | SHOW | (text25y) | |
| | WAIT | block25x | |
| 25z | SHOW | (text25z) | |
| | WAIT | block25y | |
| 25aa | SHOW | (text25aa) | |
| | DECIDE | block25y, block25bb | |
| 25bb | SHOW | (text25bb) | |
| | SHOWB | Guide reference page 9. | |
| | DECIDE | block25cc, block25dd, block25y | |
| 25cc | SET | ISR_QUESTION(8,TASK) = 1 | |
| | GOTO | block26a | |
| 25dd | SET | ISR_QUESTION(8,TASK) = 0 | |

(text25y) SOURCES OF INFORMATION

Check Training Manuals, task description, etc., to determine training equipment requirements. Survey field supervisors to determine if training equipment is available in field units.

(text25z) SOURCES OF INFORMATION (continued)

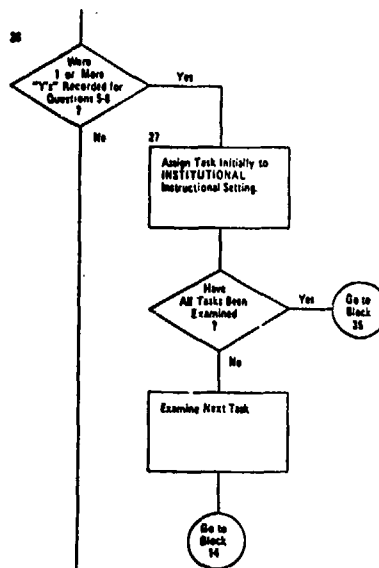
Panel of Recent Job Supervisors. Use in conjunction with Training Manuals, Job Performance Measures, etc. See Supplemental Guide for guidance in selecting panel.

(text25aa) Do you want to review the sources of information before you answer the question?

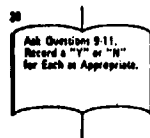
(text25bb) ANSWER THIS QUESTION

/\$TASKCODE(TASK)/

Are equipment and/or facilities only available for training at the school?



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|--|--------------------------------------|
| 26a | ITERATE | Q, 5, 8 | ****If answer is "Y" |
| | GOTO | block27a IF ISR_QUESTION(Q,TASK)=1 | |
| | NEXT | Q | |
| | GOTO | block28a | |
| 27a | SET | SETTING(TASK) = 1 | ****Assign to institutional setting. |
| | GOTO | block35a IF TASK = NUMBER_OF_TASKS | |
| | SHOW | #PRESS NEXT# to examine the next task. | |
| | NEXT | TASK | |



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|-------------------------|--|----------|
| 28a | SHOW WAIT | (text28a) | |
| 28b | SHOW SHOWB WAIT | (text28b) Guide reference page 9. block28a | |
| 28c | SHOW WAIT | (text28c) block28b) | |
| 28d | SHOW WAIT | (text28d) block28c | |
| 28e | SHOW DECIDE | (text28e) block28b, block28f | |
| 28f | SHOW SHOWB DECIDE | (text28f) Guide reference page 9. block28g, block28h, block28b | |
| 28g | SET GOTO | ISR_QUESTION(9,TASK) = 1 block28i | |
| 28h | SET | ISR_QUESTION(9,TASK) = 0 | |

(text28a) /\$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Is the equipment required for individual training of this task in the unit available at most units?

(text28b) SOURCES OF INFORMATION

Field Survey of Supervisors is an excellent source of information if time for survey is available. See Supplemental Guide for guidance in conducting a survey.

(text28c) SOURCES OF INFORMATION (continued)

Panel of Recent Job Supervisors is a good source of information. See Supplemental Guide for guidance in selecting panel.

(text28d) SOURCES OF INFORMATION (continued)

Training Manuals to determine equipment requirement followed by review of TOE/MTOE or TDA for appropriate units. Good source of information.

(text28e) Would you like to review the sources of information before answering the question?

(text28f) ANSWER THIS QUESTION

/\$TASKCODE(TASK)/

Is the equipment required for individual training of this task in the unit available at most units?

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|-------------------------|---|----------|
| 28i | SHOW WAIT | (text28i) | |
| 28j | SHOW SHOWB WAIT | (text28j) Guide reference page 10. block28i | |
| 28k | SHOW WAIT | (text28k) block28j | |
| 28m | SHOW WAIT | (text28m) block28k | |
| 28n | SHOW DECIDE | (text28n) block28j, block28o | |
| 28o | SHOW SHOWB DECIDE | (text28o) Guide reference page 10. block28p, block28q, block28j | |
| 28p | SET GOTO | ISR_QUESTION(10,TASK) = 1 block28r | |
| 28q | SET | ISR_QUESTION(10,TASK) = 0 | |

(text28i) /\$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Are personnel with the necessary expertise available at most units to conduct the training for this task?

(text28j) SOURCES OF INFORMATION

Field Survey of Supervisors is an excellent source of information if time for survey is available. See Supplemental Guide for guidance in conducting a field survey.

(text28k) SOURCES OF INFORMATION (continued)

Panel of Recent Job Supervisors. Good source. See Supplemental Guide for guidance in convening the panel.

(text28m) SOURCES OF INFORMATION (continued)

Your own judgment. Use only if other sources are not available.

(text28n) Do you want to review the sources of information before answering this question?

(text28o) ANSWER THIS QUESTION

/\$TASKCODE(TASK)/

Are personnel with the necessary expertise available at most units to conduct the training for this task?

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|-------------------------|---|----------|
| 28r | SHOW WAIT | (text28r) | |
| 28s | SHOW SHOWB WAIT | (text28s) Guide reference page 10. block28r | |
| 28t | SHOW WAIT | (text28t) block28s | |
| 28u | SHOW DECIDE | (text28u) block28s, block28v | |
| 28v | SHOW SHOWB DECIDE | (text28v) Guide reference page 10. block28w, block28x, block28s | |
| 28w | SET GOTO | ISR_QUESTION(11,TASK) = 1 block29a | |
| 28x | SET | ISR_QUESTION(11,TASK) = 0 | |

(text28r) /\$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Do operational requirements at most units allow sufficient time for the soldier to be trained in the unit?

(text28s) SOURCES OF INFORMATION

Field Survey of Supervisors is an excellent source of this information. See Supplemental Guide for guidance in conducting a field survey.

(text28t) SOURCES OF INFORMATION (continued)

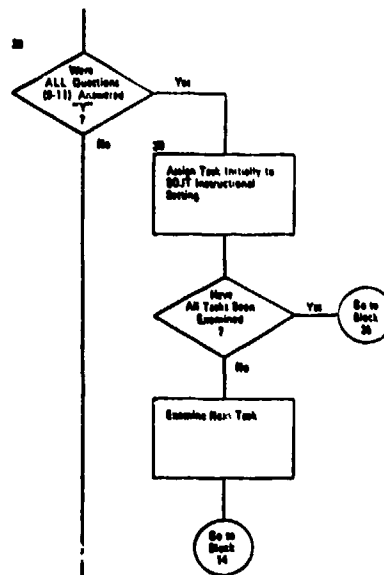
Panel of Recent Job Supervisors. Good source. See Supplemental Guide for guidance in selecting panel.

(text28u) Do you want to review the sources of information before answering this question?

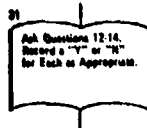
(text28v) ANSWER THIS QUESTION

/\$TASKCODE(TASK)/

Do operational requirements at most units allow sufficient time for the soldier to be trained in the unit?



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|-----------------------------|---|--|
| 29a | ITERATE GOTO NEXT | Q, 9, 11 block31a IF ISR_QUESTION(Q,TASK) = 0 Q | |
| 30a | SET GOTO SHOW NEXT | SETTING(TASK) = 2 block35a IF TASK = NUMBER_OF_TASKS #PRESS NEXT# to examine the next task. TASK | ****Indicates SOJT instructional setting. |



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|-----------------------|---|----------|
| 31a | SHOW WAIT | (text31a) | |
| 31b | SHOW SHOWB WAIT | (text31b) Guide reference page 10. block31a | |
| 31c | SHOW WAIT | (text31c) block31b | |
| 31d | SHOW WAIT | (text31d) block31c | |
| 31e | SHOW WAIT | (text31e) block31d | |
| 31f | SHOW DECIDE | (text31f) block31b, block31g | |
| 31g | SHOW DECIDE | (text31g) block31h, block31i, block31b | |
| 31h | SET SHOWB GOTO | ISR_QUESTION(12,TASK) = 1 Guide reference page 10. block31j | |
| 31i | SET | ISR_QUESTION(12,TASK) = 0 | |

(text31a) /\$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Can this task be learned with very little supervision (i.e., can the soldier learn the task through self-study)?

(text31b) SOURCES OF INFORMATION

Output from ISD I.2 Select Task/Functions. Task learning difficulty should have been established on a rating scale of 1 to 7 and will, therefore, be an excellent indication of the amount of supervision required.

(text31c) SOURCES OF INFORMATION (continued)

Field Survey of Job Supervisors. Excellent source if time for survey is available. See Supplemental Guide for guidance in conducting field survey.

(text31d) SOURCES OF INFORMATION (continued)

Panel of Recent Job Supervisors. Good source of information. See Supplemental Guide for guidance in selecting panel.

(text31e) SOURCES OF INFORMATION (continued)

Your own judgment. Use only if other sources are not available.

(text31f) Do you want to review the sources of information before you answer this question?

(text31g) ANSWER THIS QUESTION

/\$TASKCODE(TASK)/

Can this task be learned with very little supervision (i.e., can the soldier learn the task through self-study)?

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|-------------------------|---|----------|
| 31j | SHOW WAIT | (text31j) | |
| 31k | SHOW SHOWB WAIT | (text31k) Guide reference page 10. block31j | |
| 31m | SHOW WAIT | (text31m) block31k | |
| 31n | SHOW WAIT | (text31n) block31m | |
| 31o | SHOW DECIDE | (text31o) block31k, block31p | |
| 31p | SHOW SHOWB DECIDE | (text31p) Guide reference page 10. block31q, block31r, block31k | |
| 31q | SET GOTO | ISR_QUESTION(13,TASK) = 1 block31s | |
| 31r | SET | ISR_QUESTION(13,TASK) = 0 | |

(text3lj) /\$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Does the soldier's schedule allow sufficient time for independent study?

(text3lk) SOURCES OF INFORMATION

Field Survey of Job Incumbents and Job Supervisors. Excellent source especially when a comparison is made between the two sources. See Supplemental Guide for guidance in conducting a field survey.

(text3lm) SOURCES OF INFORMATION (continued)

Panel of Recent Job Incumbents and Recent Job Supervisors. Good source. See Supplemental Guide for guidance in selecting panels.

(text3ln) SOURCES OF INFORMATION (continued)

Your own judgment. Use only if other sources are not available.

(text3lo) Do you want to review the sources of information before you answer this question?

(text3lp) ANSWER THIS QUESTION

/ \$TASKCODE(TASK) /

Does the soldier's schedule allow sufficient time for independent study?

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|-------------------------|---|----------|
| 31s | SHOW WAIT | (text31s) | |
| 31t | SHOW SHOWB WAIT | (text31t) Guide reference page 11. block31s | |
| 31u | SHOW WAIT | (text31u) block31t | |
| 31v | SHOW WAIT | (text31v) block31u | |
| 31w | SHOW DECIDE | (text31w) block31t, block31x | |
| 31x | SHOW SHOWB DECIDE | (text31x) Guide reference page 11. block31y, block31z, block31t | |
| 31y | SET GOTO | ISR_QUESTION(14,TASK) = 1 block32a | |
| 31z | SET | ISR_QUESTION(14,TASK) = 0 | |

(text3ls) /\$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Can everything required for training (which is not already available in the field) be included in the training package and is it inexpensively exportable?

(text3lt) SOURCES OF INFORMATION

Check with Course Development Personnel.

(text3lu) Panel of Subject Matter Experts. Fair source. See Supplemental Guide for guidance in selecting panel.

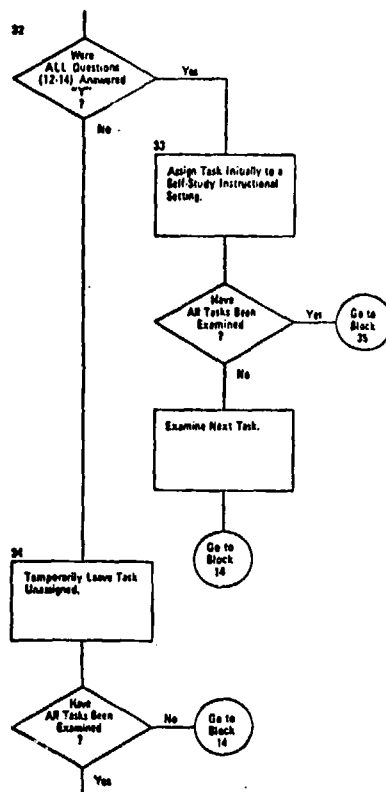
(text3lv) Your own judgment. Use only if other sources are not available.

(text3lw) Do you want to review the sources of information before answering the question?

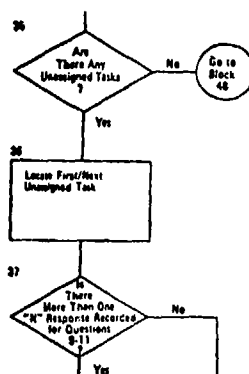
(text3lx) ANSWER THIS QUESTION

/\$TASKCODE(TASK)/

Can everything required for training (which is not already available in the field) be included in the training package and is it inexpensively exportable?



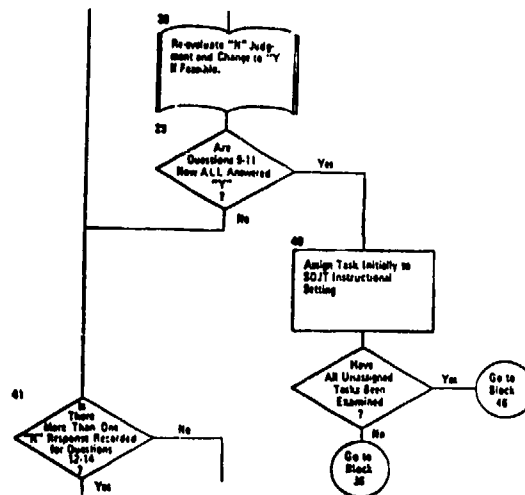
| BLOCK | COMMAND | TAG | COMMENTS |
|-------|-------------------------|--|---|
| 32a | ITERATE GOTO NEXT | Q, 12, 14 block34a IF ISR_QUESTION(Q,TASK) = 0 Q | |
| 33a | SET | SETTING(TASK) = 3 | ****Indicates self-study instructional setting. |
| 34a | GOTO SHOW NEXT | block35a IF TASK = NUMBER_OF_TASKS #PRESS NEXT# to examine the next task. TASK | |



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|---------------------------------------|--|
| 35a | SET | FIRST_TIME = 0 | |
| 35b | ITERATE | TASK, 1, NUMBER_OF_TASKS | |
| 36a | GOTO | block37a IF SETTING(TASK) = 0 | ****Jump out of loop if an unassigned task is found. |
| | NEXT | TASK | |
| | GOTO | block46a | ****Go to review of initial assignments when all tasks are assigned. |
| 37a | SET | NOCOUNT = 0 | |
| | ITERATE | Q, 9, 11 | |
| | GOTO | block37b, IF ISR_QUESTION(Q,TASK) = 1 | |
| | SET | NOCOUNT = NOCOUNT + 1 | |
| | SET | WHICH = Q | |
| 37b | NEXT | Q | |
| | GOTO | block41a IF NOCOUNT > 1 | |
| | CALL | INTROa | ****NEW PDL COMMAND TO CALL A SUBROUTINE. |
| | SHOW | (text37b) | ****Show this text in combination with text 38a, b, or c (i.e., do not automatically clear text37b). |
| | GOTO | block38a IF WHICH = 9 | |
| | GOTO | block38b IF WHICH = 10 | |
| | GOTO | block38c IF WHICH = 11 | |
| | | | |

(text37b) Please reevaluate the following question with respect to
task

/\$TASKCODE(TASK)/:



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|---------------------------------------|-----------------------------|
| 38a | SHOW | (text38a) | |
| | GOTO | block39a | |
| 38b | SHOW | (text38b) | |
| | GOTO | block39a | |
| 38c | SHOW | (text38c) | |
| 39a | DECIDE | block40a, block41a | |
| 40a | SET | SETTING(TASK) = 2 | |
| | SET | ISR_QUESTION(WHICH, TASK) = -1 | ****INDICATE CHANGED ANSWER |
| | NEXT | TASK | |
| 41a | SET | NOCOUNT = 0 | |
| | ITERATE | Q, 12, 14 | |
| | GOTO | block41b IF ISR_QUESTION(Q, TASK) = 1 | |
| | SET | NOCOUNT = NOCOUNT + 1 | |
| | SET | WHICH = Q | |
| 41b | NEXT | Q | |
| | GOTO | block45a IF NOCOUNT > 1 | |
| | CALL | INTROa | ****SUBROUTINE CALL |
| | SHOW | (text41b) | |

(text38a) EQUIPMENT AVAILABLE AT UNIT?

Is the equipment required for individual training of this task in the unit available at most units?

Can you realistically change your "NO" response to a "YES" response?

(text38b) SUPERVISION AVAILABLE AT UNIT?

Are personnel with the necessary expertise available at most units to conduct the training for this task?

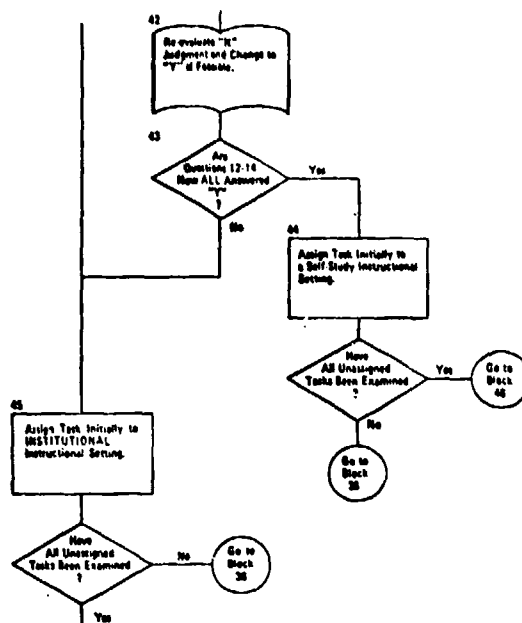
Can you realistically change your "NO" response to a "YES" response?

(text38c) TIME TO TRAIN AVAILABLE AT UNIT?

Do operational requirements at most units allow sufficient time for the soldier to be trained in the unit?

Can you realistically change your "NO" response to a "YES" response?

(text41b) Please reevaluate the following question with respect to task
/\$TASKCODE(TASK)/:



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|----------------------|--|-----------------------------|
| 41c | GOTO GOTO GOTO | block42a IF WHICH = 12 block42b IF WHICH = 13 block42c IF WHICH = 14 | |
| 42a | SHOW GOTO | (text42a) block43a | |
| 42b | SHOW GOTO | (text42b) block43a | |
| 42c | SHOW | (text42c) | |
| 43a | DECIDE | block44a, block45a | |
| 44a | SET SET NEXT | SETTING(TASK) = 3 ISR_QUESTION(WHICH,TASK) = -1 TASK | ****INDICATE CHANGED ANSWER |
| 45a | SET NEXT | SETTING(TASK) = 1 TASK | |

(text42a) LITTLE SUPERVISION REQUIRED?

Can this task be learned with very little supervision (i.e., can the soldier learn the task through self-study)?

Can you realistically change your "NO" response to a "YES" response?

(text42b) TIME TO STUDY AVAILABLE?

Does the soldier's schedule allow sufficient time for independent study?

Can you realistically change your "NO" response to a "YES" response?

(text42c) LESSONS/EQUIPMENT EXPORTABLE?

Can everything required for training (which is not already available in the field) be included in the training package and is it inexpensively exportable?

Can you realistically change your "NO" response to a "YES" response?



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------------------------------|--|---|
| 46a | SHOW SHOWB WAIT | (text46a) Guide reference page 11. | |
| 46b | ITERATE GOTO GOTO GOTO | S, 1, 3 block46c IF S = 1 block46f IF S = 2 block46j IF S = 3 | ****Go through loop for each instructional setting. |
| 46c | SHOW WAIT | (text46c) | |
| 46d | SHOW WAIT | (text46d) block46c | |
| 46e | SHOW SHOWB WAIT GOTO | (text46e) Guide reference page 11. block46d block46m | |

(text46a) We will now review the initial instructional setting for each task.

#PRESS NEXT#

(text46c) For each task initially assigned to the Institution, consider any reason why the task should NOT be trained in a school setting. Following are examples of questions you might want to ask as you review each task:

- Do feedback from the field or SQT results indicate that an Institutional setting has proven ineffective for any of these tasks?
- Are appropriate cues or stimuli not available in the school for any task?

#PRESS NEXT# for more example questions.

- (text46d)
- Are skilled instructors available for teaching the task in the school?
 - Is time and money available for training the task in the school?
 - Are there any job factors unique to this MOS which would cause you to change this instructional setting?
 - Will new equipment/simulators soon to be available cause to change this setting?

You may have other reasons why the task should not be taught at the institution. Consider each reason carefully.

#PRESS NEXT#

(text46e) If you decide that an institutional setting is unsuitable, review questions 7 through 14 on the ISR Sheet to determine if the task can be assigned to SOJT or Self-study. If necessary, consult with other subject matter experts or your supervisor to arrive at a suitable instructional setting for the task.

#PRESS NEXT#

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|--------------------------|----------|
| 46f | SHOW | (text46f) | |
| | WAIT | | |
| 46g | SHOW | (text46g) | |
| | WAIT | block46f | |
| 46h | SHOW | (text46h) | |
| | WAIT | block46g | |
| 46i | SHOW | (text46i) | |
| | SHOWB | Guide reference page 11. | |
| | WAIT | block46h | |
| | GOTO | block46m | |

(text46f) For each task initially assigned to SOJT, consider any reason why the task should NOT be trained in that setting. Following are examples of questions you might want to ask as you review each task.

#PRESS NEXT#

- (text46g)
- Do feedback from the field or SQT results indicate that a SOJT setting has proven ineffective for any of these tasks?
 - Is the environment too hazardous for training this task in the field? For example, would errors made during training in a field environment be critical to the student, to others, or to equipment?
 - Will new equipment/simulators soon to be available cause you to change this setting?

#PRESS NEXT# for more questions.

- (text46h)
- Do "percentage performing" figures indicate that fewer soldiers are performing this task than should be? If so, does the percent which should be performing meet the criterion for high task performance and, therefore, consideration for Institutional training?
 - Are there any job factors unique to this MOS which would cause you to change this instructional setting?

You may have other reasons why the task should not be taught by SOJT. Consider each reason carefully.

#PRESS NEXT#

- (text46i)
- If you decide that a SOJT instructional setting is unsuitable, review all of the questions on the ISR Sheet to determine if the task should be assigned to an Institutional or Self-study instructional setting. If necessary, consult with other subject matter experts or your supervisor to arrive at a suitable instructional setting for the task.

#PRESS NEXT#

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|-----------------------|---|----------|
| 46j | SHOW WAIT | (text46j) | |
| 46k | SHOW WAIT | (text46k) block46j | |
| 46m | SHOW SHOWB WAIT | (text46m) Guide reference page 12. block46k | |
| 46n | ITERATE GOTO | TASK, 1, NUMBER_OF_TASKS block48f IF SETTING(TASK) = S | |

(text46j) For each task initially assigned to Self-study, consider any reason why the task should NOT be learned in this setting. Following are examples of questions you might want to ask as you review each task:

- Do feedback from the field or SQT results indicate that a Self-study setting has proven ineffective for any of these tasks?
- Will new equipment/simulators soon to be available cause you to change the setting?

#PRESS NEXT# for more questions.

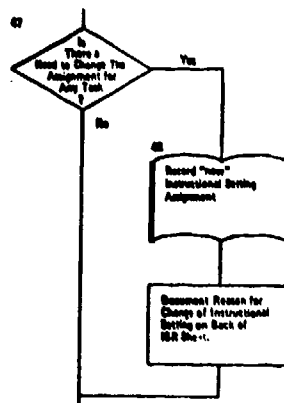
- (text46k)
- Do "percentage performing" figures indicate that fewer soldiers are performing this task than should be? If so, does the percent which should be performing meet the criterion for high task performance and, therefore, consideration for Institutional training?
 - Would the percent performing figure change radically during mobilization? Would the task then become a candidate for training in the Institution.
 - Are there any job factors unique to this MOS which would cause you to change this instructional setting?

You may have other reasons why the task should not be taught by Self-study. Consider each reason carefully.

#PRESS NEXT#

- (text46m)
- If you decide that a Self-study instructional setting is unsuitable, refer to the Supplemental Guide to determine if the task should be assigned to an Institutional or SOJT instructional setting. If necessary, consult with other subject matter experts or your supervisor to arrive at a suitable instructional setting for the task.

#PRESS NEXT#



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|------------------------|----------|
| 47a | SHOW | (text47a) | |
| | DECIDE | block48a, block48e | |
| 48a | SHOW | (text48a) | |
| | ACCEPT | NEW_S, 1, 3 | |
| | GOTO | block48c, IF S = NEW_S | |
| 48b | SHOW | (text48b) | |
| | WAIT | block47a | |
| | GOTO | block47a | |

(text47a) TASK /\$TASKCODE(TASK)/

Has been initially assigned to /\$INSTR_SETTING(S)/.

Is there any reason to change this assignment?

(text48a) Type the number that corresponds to the new instructional setting for /\$TASKCODE(TASK)/.

Then #PRESS NEXT#.

- 1 - INSTITUTION
- 2 - SOJT
- 3 - SELF-STUDY

(text48b) Your selection is the same as the current instructional setting.

#PRESS NEXT#

| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|--------------------------------|----------|
| 48c | SET | FSETTING(TASK) = NEW_S | |
| | SHOW | (text48c) | |
| | WAIT | (block48d) | |
| | GOTO | block48f | |
| 48d | SHOW | (text48d1) | |
| | WAIT | | |
| | SHOW | (text48d2) | |
| | WAIT | | |
| | SHOW | (text48d3) | |
| | GOTO | block48f | |
| 48e | SET | FSETTING(TASK) = SETTING(TASK) | |
| 48f | NEXT | TASK | |
| | NEXT | S | |
| | GOTO | block49a | |

(task48c) REMEMBER . . .

It is important that you document the task ID number and the reason for changing the instructional setting. There is a place for this on the back of the ISR Sheet which can be obtained from your supervisor.

#PRESS HELP# for information on preparing comments for others.

#PRESS NEXT# to continue.

(text48d1) In order for the Instructional Systems Development process to work effectively, it is imperative that there be forward and backward communication between the people involved in the process. At some time or other, you have probably complained about the input that has been provided to you. For example, you may have thought that other tasks should have been included in the critical task listing, or that the job performance measures were incomplete or inaccurate. Sometimes, you may have had to do work that should have been preformed in previous steps.

#PRESS NEXT#

(text48d2) It is important that you feed this information back to the appropriate people so that revisions can be made to effect improvement in the end product.

In your research for this step of the Instructional Systems Development process, you may have discovered additional information that you think may be useful to people who will be working in steps that follow this one. If so, it is equally important that you pass this information on to appropriate people.

#PRESS NEXT#

(text48d3) REMEMBER, COMMUNICATION WITHIN THE INSTRUCTIONAL SYSTEMS DEVELOPMENT PROCESS IS CRITICAL FOR EFFECTIVE INSTRUCTIONAL DEVELOPMENT.

- A copy of the ISD COORDINATION SHEET can be obtained from your supervisor. Make sufficient copies to enable you to send one to every individual you wish to communicate with-- plus copies for your records.
- Complete the ISD COORDINATION SHEET in duplicate. Send one copy to the individual and attach one copy to the Instructional Settings Package (ISR Sheets).

#PRESS NEXT#

| BLOCK | COMMAND | TAG | COMMENTS |
|--------|---------|--------------------------|--|
| INTROa | GOTO | INTROc IF FIRST_TIME > 0 | ****Subroutine to display introductory material the first time through the loop. |
| | SET | FIRST_TIME = 1 | |
| | SHOW | (text INTROa) | |
| | WAIT | | |
| INTROb | SHOW | (text INTROb) | |
| | WAIT | | |
| INTROc | RETURN | | |

(text introa)

Next, you will review the tasks that have not been assigned to an instructional setting.

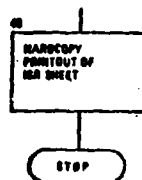
To do this, you will reevaluate the "NO" responses to determine if your initial judgment was correct. However, it is important that you DO NOT change your "NO" response unless you definitely think there is a legitimate basis for changing it to "YES."

#PRESS NEXT#

(text introb)

For example, when you recorded a "NO" response to a question, such as "equipment needed for training is not available in the unit," you may have been in doubt about your answer. If so, check with your supervisor, a new sample of recent job incumbents, or other subject matter experts to determine if your initial judgment was correct.

#PRESS NEXT#



| BLOCK | COMMAND | TAG | COMMENTS |
|-------|---------|-----|---|
| 49a | STOP | | ****See attached memorandum, Guidelines for Producing Results of I.5 in hardcopy. |

This memorandum documents the requirement for a hardcopy printout of the Instructional Setting Recording Sheet information, based upon the data collected during execution of the Job Aid I.5 program. The variables and arrays that correspond to each section of the ISR Sheet are written on the attached sample.

TASKS PERFORMED BY SPECIFIC DUTY POSITIONS

IF ISR_DUTY (DP,TASK) = 1 PUT "X" IN APPROPRIATE CELL

IF ISR_DUTY (DP,TASK) = 0 LEAVE CELL BLANK

PERCENT PERFORMING

ISR_%(1) TO ISR_% (NUMBER_OF_TASKS)

TEST ISR_%(1) ISR_% (NUMBER_OF_TASKS)

IF ISR_%(N) = 1 THEN HIGHLIGHT

ISR_%(N) AS AN ESTIMATE (e.g., put an asterisk beside it).

IF ISR_%(N) = 0 LEAVE ISR_%(N) AS IS.

QUESTIONS 1 THROUGH 14

ISR_QUESTION (1, 1) TO ISR_QUESTION(14, NUMBER_OF_TASKS)

IF ISR_QUESTION (Q,TASK) = 1 THEN RECORD "Y" IN THE APPROPRIATE CELL

IF ISR_QUESTION (Q,TASK) = -1 THEN RECORD "Y" AND HIGHLIGHT IT BECAUSE IT HAS BEEN CHANGED FROM A 'NO' TO A 'YES'. THIS WILL ONLY BE POSSIBLE ON QUESTIONS 9 THROUGH 14.

IF ISR_QUESTION (Q,TASK) = 0 THEN RECORD "N" IN THE CELL.

IF ISR_QUESTION (Q,TASK) =

| |
|------------------|
| INITIAL VALUE |
|------------------|

 THEN LEAVE THE CELL BLANK (99 IN OUR CASE).

(This array should be initialized to a value at the beginning of the program.)

INSTRUCTIONAL SETTING

FSETTING(1) . . . TO FSETTING(NUMBER_OF_TASKS)

IF FSETTING(TASK) = 1 THEN PUT AN "X" IN APPROPRIATE COLUMN IN INSTITUTION ROW.

IF FSETTING(TASK) = 2 THEN PUT AN "X" IN APPROPRIATE COLUMN IN SOJT ROW.

IF FSETTING(TASK) = 3 THEN PUT AN "X" IN APPROPRIATE COLUMN IN SELF-STUDY ROW.

IF FSETTING(TASK) = SETTING (TASK) THEN YOU ARE FINISHED.

IF FSETTING(TASK) # SETTING (TASK) THEN PUT AN "X" IN APPROPRIATE COLUMN AND ROW (ROW 1 OR 2 OR 3) DEPENDING ON THE VALUE OF SETTING(TASK). HIGHLIGHT THIS ENTRY SINCE IT WAS THE INITIAL SETTING SELECTED.